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1. A medieval Nubian kingdom controlling the central Nile Valley, best known from Old Nubian documents excavated at Qasr Ibrim and other sites in Lower Nubia.
2. An open-access journal of Nubian studies, providing a cross-disciplinary platform for historians, linguists, anthropologists, archaeologists, and other scholars interested in all periods and aspects of Nubian civilization.

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2. ΙⲤⲀΚΚⲀ, ⲆΟΤⲀϩ̄ϩ̄Ο ϣⲞ̄Ⲡ ϣⲞ̄ⲠΙΝ Κ⳪Ν ⲤΙΓⲈΡΙΝ ⲈΡΡΙ ϩ̄Ε̄ΡⲀ ⲀⲄⲄΟ. ⲆΟΤⲀϩ̄ϩ̄Ο, ΝΟⲠⲀΝ ΚΟΥⲖⲖΙΤΤΙ ⲘⲀⲖⲖⲈ̄ⲖⲖⲈΚΙΝ ΚⲀϩ̄ϩ̄ⲀⲫΙ. ⲆΟΤⲀϩ̄ϩ̄Ο, ⲤⲀⲘ ϩ̄Ε̄ΚΚⲀ ⲠⲆ̄ⲤΚⲈ, ΚΟΥⲖⲖΙΤΤΙ Ι66ΙΚΚⲞ̄Ῡ ϬⲀⲘⲘΙΚⲀ66ⲀⲖϊⲆ̈. ΙΝ ⲤⲀⲘΙΚΚΟΝΙ, ΟΥΝⲆⲈ̄Ν ΚΟΥⲖⲖⲈΚⲀΤΤⲒ̄ΚΚΟ, ΤⲀⲘⲈΝ ΚΟΥⲖⲖⲈΚⲀΤΤⲒ̄ΚΚΟ, ⲠΙΡⲠΕ̄Ν ΚΟΥⲖⲖⲈΚⲀΤΤⲒ̄ΚΚΟ, ⲘΟΥΓⲘⲀΡΙΝ ΚΟΥⲖⲖⲈΚⲀΤΤⲒ̄ΚΚΟΝⲀ ⲀⲄⲄΙ. ϩ̄Ⲓ̄ⲆⲀⲄ⳪ΝΙ, ⲆΟΤⲀϩ̄ϩ̄Ο, ⲤⲀⲘ ⲆⲀϩ̄ϩ̄Ι ϩ̄Ε̄ ⲫⲀ ⲀⲄⲄΙ, ΚΟΥⲖⲖⲈΚⲀΤΤΙ Ι66Ι ⲘⲀⲖⲖⲈ̄ΝⲀ. ⲘⲀΝ ΚΟΥⲖⲖⲈΚⲀΤΤΙ ⲘⲀⲖⲖⲈ̄, ΝΟⲠⲀΝ ⲆΙⲫⲫΙΚΚΙΝ ΚΙΝΝΙΓⲞ̄ῩΚΚΟΝ, ΓⲆ̄ΡΚⲞ̄ῩΓ⳪Ν ΚΟΥⲖⲖΙΝΝⲀΝⲄⲀ ⲫΙΡΓΙ.[*]

1. Ammiki Nuba–n sirki Tungula–n Bahar aal poccika anda kannim, ne poccika an ammikin Nuba–n kitaaba an Kasr Ibrimiro poon isshi Nuba aro–n ammiki ir kar əəl koran əəllooyanero poccikare əəl oddnooyim.
2. Ele ne Nuba poccikan muɟallayane, aal poccika yaa əərngaanyatn, taariikiro, aallo, elekon poon ammik(i) ir ayin ir kanniyam pirro, poon ammik(i) aallo, elek(i) aallo poccikaa yaa əərngaanyatn.[**]

From the Editors

We are proud to present the second volume of *Dotawo: A Journal of Nubian Studies.* This journal offers a multi-disciplinary, diachronic view of all aspects of Nubian civilization. It brings to Nubian studies a new approach to scholarly knowledge: an open-access collaboration with DigitalCommons@Fairfield, an institutional repository of Fairfield University in Connecticut, USA, and publishing house punctum books.

The first two volumes of *Dotawo* have their origins in a Nubian language panel organized by Angelika Jakobi within the *Nilo-Saharan Linguistics Colloquium* held at the University of Cologne, May 22 to 24, 2013. Since many invited participants from Sudan were unable to get visas due to the shutdown of the German Embassy in Khartoum at that time, the Fritz Thyssen Foundation funded the organization of a second venue of specialists on modern Nubian languages. This so-called "Nubian Panel 2" was hosted by the Institute of African & Asian Studies at the University of Khartoum on September 18 and 19, 2013. This volume publishes the proceedings of that that panel. We wish to extend our thanks both to the Fritz Thyssen Foundation and to Professor Abdelrahim Hamid Mugaddam, the then director of the Institute of African & Asian Studies, for their generous support.

Future volumes will address three more themes: 1) Nubian women; 2) Nubian place names; 3) and know-how and techniques in ancient Sudan. The calls for papers for the first two volumes may be found on the back of this volume. The third volume is already in preparation with the assistance of Marc Maillot of the Section française de la direction des antiquités du Soudan (SFDAS), Department of Archeology. We welcome proposals for additional themed volumes, and invite individual submissions on any topic relevant to Nubian studies.

Old Nubian Relative Clauses

Vincent W.J. van Gerven Oei*

1. Introduction

In this article, I venture to offer an in-depth analysis of the structure of Old Nubian relative clauses (henceforth, RCs), in an attempt to reorganize and consolidate the observations made in Gerald M. Browne's *Old Nubian Grammar,*[1] Helmut Satzinger's earlier article "Relativsatz und Thematisierung im Altnubischen,"[2] and Marianne Bechhaus-Gerst's *The (Hi)story of Nobiin.*[3] Satzinger's article, our first extensive source for the grammatical analysis of Old Nubian RCs, was written in response to a series of grammatical observations by Browne in *Studies in Old Nubian.*[4] However, this response was unfortunately never fully incorporated into *Old Nubian Grammar,*[5] where Browne discusses RCs in §§4.4–6.[6] In these few dense and somewhat confusing paragraphs, Browne organizes Old Nubian RCs mainly based on word order, without clearly marking out syntactical relations, thus losing much of the insights of Satzinger's more structured approach. Bechhaus-Gerst offers the most recent analysis of Old Nubian RC constructions in *The (Hi)story of Nobiin,* in an attempt to integrate the approaches of Satzinger and Browne, but remarks that "a thorough analysis [...] would go beyond the scope," of her study.[7] During the preparation of this article we have also consulted comparative material from related contemporary Nile

1 BROWNE, *Old Nubian Grammar.*
2 SATZINGER, "Relativsatz und Thematisierung im Altnubischen."
3 BECHHAUS-GERST, *The (Hi)story of Nobiin,* esp. pp. 207–11. Glossing has been occasionally adjusted to match the set of abbreviations listed in fn. 16.
4 BROWNE, *Studies in Old Nubian.*
5 Browne refers to Satzinger's approach as a "somewhat different orientation" (BROWNE, *Old Nubian Grammar,* p. 83, fn. 99).
6 Browne further combines relative constructions with temporal and adverbial subordinate clauses in *Old Nubian Grammar,* §4.7, which I will not consider here. However, I touch upon conditional and final clauses in "A Note on the Old Nubian Morpheme -ⲁ in Nominal and Verbal Predicates." See also BECHHAUS-GERST, *The (Hi)story of Nobiin,* pp. 105–10.
7 BECHHAUS-GERST, ibid., p. 207.

Nubian languages[8]: the dissertation of Isameddin Awad on subordination in Nobiin [fia],[9] an article by Abdel-Hafiz Sokarno for Kenzi/Kunuz Nubian data [xnz],[10] and recent work by Angelika Jakobi and El-Shafie El-Guzuuli on RCs in Dongolawi/Andaandi [dgl].[11]

The present paper, glossing and methodically expanding the analyses of the examples adduced by Browne and Satzinger, aims to consolidate the sometimes divergent interpretations offered by Satzinger, Browne, and Bechhaus-Gerst, in an attempt to integrate Old Nubian RCs in a general syntactic framework and to harmonize their analyses with insights from contemporary syntactic theory and comparative material from closely related Nubian languages. This will hopefully allow us to make finer distinctions between the different types of Old Nubian RCs and discuss several pertinent overarching themes, such as leftward movement and extraposition, which owing to relatively marginal penetration of contemporary syntactical theory in Old Nubian studies have so far received little attention.

2. Brief overview

We will start with an overview of attributive RCs in §3, divided between coreferential (the subject of the RC is coreferential with the antecedent of the RC) in §3.1 and non-coreferential (the subject of the RC is not coreferential with the antecedent of the RC) in §3.2. Non-coreferential RCs are further subdivided into those with overt subjects (§3.2.1) and those without overt subjects (§3.2.2). As we will see, the presence or absence of an overt subject influences the morphology of the verb in the RC. For both coreferential and non-coreferential RCs I will also discuss exceptions to the general pattern in which RCs are seemingly postnominal. Section 3.1.1 treats coreferential RCs that have moved leftward and only allow for a restrictive reading. In §3.3.1 we will treat several exceptions with non-coreferential RCs that seem to be generated prenominally, and RCs of time, place, and manner (§3.3.2). Finally, §3.4 deals with constructions in which non-coreferential RCs show an anaphor coindexed with the antecedent. Free RCs, those without an overt antecedent, are treated in §4 according to their grammatical function in the main clause, starting with subject clauses (§4.1) and object clauses (§4.2), which also include different types of complement clauses (§4.2.1–2). Section 4.3 deals with free RCs in other, secondary positions. A specific section (§5) is devoted to RCs in combination with the so-called pred-

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8 See RILLY, *Le méroïtique et sa famille linguistique,* p. 165, for a brief discussion. Language abbreviations follow the ISO 639-3 standard employed by *Ethnologue.*
9 AWAD, *The Characteristic Features of Non-Kernel Sentences in Nobiin*. I have adjusted some of Awad's Nobiin orthography based on suggestions by Angelika Jakobi.
10 ABDEL-HAFIZ, "Nubian Relative Clauses."
11 JAKOBI & EL-GUZUULI, "Relative Clauses in Andaandi."

icative suffix -ⲁ, including nominal predicates (§5.1), complex verbal predicates, also called periphrastic constructions (§5.2), ʀᴄs in vocative or appellative contexts (§5.3), and adjunctive/appositional clauses, which usually feature only a bare -ⲁ suffix without any additional tense morphology (§5.4). Sections 5.5–7 deal with a series of more complex syntactical constructions, including the topicalization through -ⲥⲓⲛ of the antecedent of an ʀᴄ (§5.5), ʀᴄs in the scope of quantifiers (§5.6), and finally quantifier raising through -ⲥⲓⲛ (§5.7). Section 6 treats with two different types of extraposition, in which (part of) the ʀᴄ appears to have moved to the right of the clause, motivated by the heaviness of the ʀᴄ. We have distinguished two types of extraposition, depending on whether the non-coreferential ʀᴄ shows verbal agreement (§6.1) or not (§6.2). Finally, §7 deals with preterite tense morphology in ʀᴄs, which appears to be distributed according to whether the ʀᴄ is coreferential or not. An concluding overview is given schematically in §8.

3. Attributive relative clauses

Attributive ʀᴄs are full clauses showing tense morphology, and may feature an overt subject and be introduced by a relative pronoun. An ʀᴄ is embedded with the main clause, connected through an antecedent that has a syntactical function both in the embedded and in the main clause. If the subject of the ʀᴄ coincides with its antecedent, we speak of a coreferential attributive ʀᴄ. If this is not the case, the attributive ʀᴄ is called non-coreferential. The distinction between coreferential and non-coreferential attributive ʀᴄs in Old Nubian is reflected in the syntax, whence Satzinger labels coreferential attributive ʀᴄs as "Type A," and non-coreferential ones as "Type B." Bechhaus-Gerst broadly follows Satzinger's categorization, whereas Browne makes no descriptive distinction between the two types, lumping both under the heading "adjectival conversion."[12]

Old Nubian is an sov language, like Japanese, Turkish, Dutch, or the other Nile Nubian languages.[13] This generalization allows us to make several predictions about its general syntactic structure. First we expect all phrasal heads to align on the right side. This seems to be generally the case when we inspect verb inflection, which consistently appears on the right edge, and nominal inflection (case and determiner). Also note the fact that Old Nubian has postpositions instead of prepositions. This generalization implies that any syntactical construction that on the surface does not follow this general principle will be suspected of movement. Within Nubian languages, whose ɴᴘ structure is generally very stable and predictable,[14] the

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12 Bʀᴏᴡɴᴇ, *Old Nubian Grammar*, §4.6.
13 Ibid., §4.9.1.
14 Cf. Aʟᴀᴍɪɴ, "Noun Phrase Construction in Nubian Languages."

neutral or default position for attributive RCs, whether coreferential or non-coreferential, seems to be postnominal. As we will see below, the majority of Old Nubian examples in the extant literature shows this order, which is corroborated by contemporary Nile Nubian languages.[15]

12

1a *man*   [_{rel} *buru* *ir-iin*   *doll-ee*]   *ii*
CF 497   DEM.DIST girl 2SG-GEN love-COMP1 NOM
Nobiin   *tan-jutti-li*
3SG.POSS-niece-COP2.PRS.3SG[16]
"The girl whom you love is his niece"

1b *tod* [_{rel} *een-gi*   *jom-e-l*]   *nog-s-u*
NRC 497   boy   woman-ACC hit-PST-COMP go-PST-3SG
Kenzi   "The boy that hit the woman left"

1c *ogij* [_{rel} *in*   *kaa=r*   *aag-il*]
RCA 2   man   DEM.PROX house=LOC live-PTCP.IPFV
Andaandi   *am-beena-n*
1PL.POSS-uncle-COP.3SG
"The man who lives in this house is my uncle" / "The man living in this house is my uncle"

Ex. 1a shows a non-coreferential attributive RC in Nobiin. The antecedent *man buru* does not correspond to the subject of the RC, which is the genitive-marked subject *iriin*.[17] The entire subject is, as would be expected in an SOV language, marked at its left edge by first the complementizer *-ee* and then the nominative case marker *ii*. Ex. 1b

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15 List of sigla: CF: AWAD, *The Characteristic Features of Non-Kernel Sentences in Nobiin*; HN: BECHHAUS-GERST, *The (Hi)story of Nobiin*; M.: VAN GERVEN OEI & EL-GUZUULI, *The Miracle of Saint Mina*; NRC: ABDEL-HAFIZ, "Nubian Relative Clauses"; ONG: BROWNE, *Old Nubian Grammar*; *P. QI* 1: PLUMLEY & BROWNE, *Old Nubian Texts from Qasr Ibrim* I; *P. QI* 2: BROWNE, *Old Nubian Texts from Qasr Ibrim* II; *P. QI* 4: RUFFINI, *The Bishop, the Eparch, and the King*; RCA: JAKOBI & EL-GUZUULI, "Relative Clauses in Andaandi"; RTA: SATZINGER, "Relativsatz und Thematisierung im Altnubischen." Other sigla follow ONG, §0.3.

16 List of abbreviations: 1, 2, 3 – first, second, third person; ACC – accusative; AFF – affirmative; *app* – apposition; C – coordinator/conjunction; CAUS – causative; CL – clitic; COM – comitative; COMP – complementizer; *comp* – complement clause; COMPL – completive; CONSUET – consuetudinal; COP – copula; DAT – dative; DEM – demonstrative pronoun; DET – determiner; DIR – directive; DIST – distal; EMP – emphatic clitic; EXCL – exclusive; FIN – final; FOC – focus; FUT – future; GEN – genitive; HUM – human; IMP – imperative; INCH – inchoative; INCL – inclusive; INTER – interrogative pronoun; IPFV – imperfective; J – juncture vowel; LOC – locative; NEG – negative; NOM – nominative; NOMLZ – nominalizer; NP – noun phrase; PASS – passive; PL – plural; PLACT – pluractional; PRED – predicative/predicate; PRS – present; PST – past; PT1 – preterite 1; PT2 – preterite 2; PTCP – participle; POSS – possessive; PROX – proximal; Q – question marker; QUOTE – direct speech marker; REFL – reflexive; REL – relative pronoun; *rel* – relative clause; SSC – same-subject converb; *t* – trace; TR – transitive; VET – vetitive; VOC – vocative.

17 (Nearly) all subjects in non-coreferential relative clauses in Nile Nubian are marked with the genitive case, see §3.2.

shows a coreferential attributive RC in Kenzi, with the RC marked by the complementizer *-l*. In both examples, the RC follows the antecedent. In both Kenzi and Nobiin, the RC marker (*-ee* in ex. 1a; *-l* in ex. 1b) changes based on whether the RC is coreferential or not. As Old Nubian RCs do not feature any distinctive marking on the right edge, such morphological variation has not been observed.[18]

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In strictly SOV languages such as Turkish and Japanese, RCs, like all other modifiers, are prenominal.[19] In order to account for RCs that seem to be postnominal in SOV languages, such as Dutch and Nubian languages, the so-called head-raising analysis of RCs posits that antecedents originate within the RC and move leftward to a position preceding the RC,[20] leaving a gap or trace in the RC, marked by *t*.[21]

$$[_{rel}\ \text{tod eengi jomel}] \rightarrow \text{tod}_i\ [_{rel}\ t_i\ \text{eengi jomel}]$$

2
= ex. 1b

The movement illustrated in ex. 2 itself is subjected to certain constraints, as we will find in §3.4. For the remainder of this paper we will mostly assume this movement, and for reasons of simplicity not indicate it in the examples unless necessary. In certain Nubian languages, including Old Nubian, RCs can also appear prenominally. The motivation here is always semantic. Whereas Abdel-Hafiz does not provide any other type of constituent order, Awad provides us with examples of attributive RCs that precede the antecedent.

[_rel_	*ir-iin*	*doll-ee*]-*n*		*buru*	*ii*
	2SG-GEN	love-COMP1-GEN	girl	NOM	

tan-juti-li
3SG.POSS-niece-COP2.PRS.3SG
"The girl you love is his niece"

3
CF 499
Nobiin

The postnominal RC in ex. 1a differs in two aspects from the prenominal RC in ex. 3. First, the RC is marked by the genitive case, suggesting that it has moved into the position where normally the genitive-marked possessor would appear; second, Awad indicates that *buru* can no longer be preceded by the demonstrative *man,* supposedly because all possessed nouns are by definition determinate. We will see in §3.1.1 that also in Old Nubian, leftward movement of a RC is accompanied by different morphology in the RC and is motivated by semantics. Awad also presents headless RCs as a third possibility, which we will discuss in §4 as free RCs.

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18 However, there seems to be a specific distribution of the two preterite tense morphemes in attributive relative clauses. See §7.
19 Cf. PAYNE, *Describing Morphosyntax,* p. 327.
20 See, for example, KAYNE, *The Antisymmetry of Syntax,* pp. 86ff.
21 Following Comrie's classification, Old Nubian RCs are of the gap type. See COMRIE, *Language Universals and Linguistic Typology,* p. 151.

3.1 Coreferential attributive relative clauses
Coreferential attributive RCs without an object basically correspond
to adjectival constructions with a participle,[22] such as in English
"the singing man," in the sentence "the singing man walks on the
street," which may alternatively be rendered as "the man that sings
walks on the street." The subject of the participle "singing" corre-
sponds with the subject of the main verb "walks," i.e., "man." In Old
Nubian, these constructions can only be formed by means of a par-
ticipial form consisting of at least a verbal root, tense/aspect suffix,
and the determiner -(ε/ı)λ,[23] which, however, is dropped before overt
case marking. Coreferential attributive RCs generally appear after
the noun, and, as a rule, number, case marking, and any other type
of right edge suffix (conjunctions, focus, etc.) only appear on the
right edge of the entire noun phrase that contains the RC.

We find the following general pattern for coreferential attribu-
tive RCs:

4   [... Antec-J [$_{rel}$ ... Verb-Tense/Asp]]-Det/Num/Case

5   ϭλο πιΝλ ϊογΔλιοϲϭογΝ ογρογογ ογΝΝογΤλκολ

is-lo   pi-na   [ioudaios-gou-n   ourou-ou
inter-LOC exist-PRS.2/3SG Jew-PL-GEN   king-J
[$_{rel}$ *ounn-outak-o*]]-*l*
bear-PASS-PT1-DET
"Where is the born king of the Jews?"

The RC, formed by the single embedded verb ογΝΝογΤλκο- "born,"
follows the antecedent noun phrase ϊογΔλιοϲϭογΝ ογρογογ "king of
the Jews," which is also its antecedent.[24] Note that the antecedent
ϊογΔλιοϲϭογΝ ογρογ-ογ ends in what I usually refer to as a juncture
vowel, whereas Satzinger calls it an "Appositiv") and Browne the
"annective," "an anaptyctic juncture vowel ('Bindevokal') inserted
between two words that closely cohere."[25] The same juncture, or
epenthetic vowel may be observed in adjectival constructions and
should not be confused with a case ending such as accusative or gen-
itive, as it is purely a noun phrase-internal phenomenon.[26]

22 Cf. SATZINGER, "Relativsatz und Thematisierung im Altnubischen," p. 186. Browne and
    Satzinger refer to participles a "verbids."
23 See VAN GERVEN OEI, "The Old Nubian Memorial for King George," pp. 256–62. The precise
    distribution between the vowels ε and ı when following a consonant is still uncertain. In
    Andaandi the different vowels indicate perfective and imperfective aspect, and this may also
    be the case in Old Nubian. See JAKOBI & EL-GUZUULI, "Relative Clauses in Andaandi," p. 91.
24 I have left nominative case marking, which is -∅ in Old Nubian, unglossed throughout.
25 SATZINGER, "Relativsatz und Thematisierung im Altnubischen," p. 186 et passim; BROWNE,
    Old Nubian Grammar, §3.6.5.
26 The same juncture vowel appears sometimes on personal pronouns, e.g. ex. 32. Its precise
    distribution, which seems to be of a morphosyntactic nature, has not yet been adequately
    described.

ⲉⲅⲁⲥⲛ̄ ⲉⲓⲛⲛⲁⲥ̄ⲛ ⲧⲗ̄ⲗⲟⲩ ⲁ̄ⲫⲛ̄ ⲉⲓⲗⲁ ⲇⲉⲓⲅⲁⲣⲁ ⲧⲟⲩⲣⲓ   6

eu-a-sin   *ein-na-sin*   [*till-ou* [$_{rel}$ *añ*]]-*in*
fear-PRED-EMP be-PRS.2/3SG.PRED-EMP god-J   live-GEN
ei-la   *deiŋar-a*   *touri*
hand-DAT fall.TR-PRED ?
"(For) it is to fear to fall into the hands of the God who lives."   15

In this example, in which the final word ⲧⲟⲩⲣⲓ remains unaccounted for,[27] the RC under the antecedent ⲧⲗ̄ⲗⲟⲩ consists of a single verb ⲁ̄ⲫ-, without overt tense marking (and therefore by default present tense) and no determiner -ⲗ due to the presence of the genitive case marking at the end of the noun phrase ⲧⲗ̄ⲗⲟⲩ ⲁ̄ⲫ-, which is attributive to ⲉⲓⲗⲁ: "into the hand(s) of the living God."

ⲉⲓ̀ ⲙⲁⲛ [ⲧⲁⲩⲕ?]ⲗⲟ ⲇⲟⲩⲗⲗⲁⲅⲁⲇⲗ̄ⲅⲟⲩⲗ ⲙⲉⲓⲟⲣⲁⲅⲟⲩ ⲉⲛⲇⲙ̄ⲙⲁⲛⲁ   7

[*ei* [$_{rel}$ *man*   *tauk-lo*   *doull-aŋ-ad*]]-*il-gou-l*
man   DEM.DIST time-LOC exist-INCH-FUT-DET-PL-DET
meijr-a-gou   *en-d-immana*
disobey.TR-PRED-PL   be-FUT-AFF.3PL
"The men who will come into being in that time(?) will be disobedient"

Satzinger is correct to interpret the ⲙⲁⲛ in the RC not as a relative pronoun, but rather as a deictic element referring to the emended noun ⲧⲁⲩⲕ- "time." He suggests, contra Browne,[28] that overt complementizers only appear in non-coreferential attributive clauses, which seems to be confirmed by our survey of the extant Old Nubian material. In ex. 7 we again find all nominal inflectional material on the right edge of the noun. The double determiner before and after the plural suffix is a common occurrence (see also exx. 8, 34, 35, 49, 72, 74).[29] Also note the truncated predicative plural -ⲁⲅⲟⲩ, where we would, according to Browne, expect -ⲁⲅⲟⲩⲉ.[30] Perhaps it was dropped because of the initial ⲉ- of the copula. In the lines following this example, the verb ⲉⲛⲇⲙ̄ⲙⲁⲛⲁ is repeated several times with different adjectival predicates marked by predicative -ⲁ, except K. 23.4 ⲥ̄ⲕⲟⲛⲧⲕⲫ̄- "ungrateful," ending with the privative adjective marker -ⲕⲫ̄, which seems to be directly connected to the verb, and the irregular predicative plural of K. 23.8–9 ⲙⲁⲇⲟ̄ⲕⲁⲉ̄ "liars."

The case marking in the embedded phrase is not always complete:

27 In BROWNE, *Old Nubian Dictionary*, p. 59, Browne gives the Greek gloss φοβερὸν τὸ ἐμπεσεῖν for ⲉⲅⲁⲥⲛ̄ [...] ⲇⲉⲓⲅⲁⲣⲁ ⲧⲟⲩⲣⲓ. It is possible that we are dealing here with a complementizer. Angelika Jakobi (p.c.) suggests that it is an unknown form of the verb ⲧⲟⲣ- "to enter," contributing to the meaning "fall into."
28 Cf. BROWNE, *Old Nubian Grammar*, §4.6.
29 See also VAN GERVEN OEI, "The Old Nubian Memorial for King George," p. 260.
30 BROWNE, *Old Nubian Grammar*, §3.5.2.

8   ⲁⲅⲅⲉⲗⲟⲥⲟⲩ ⲕⲟⲗⲟⲧⲟⲩ ⲡⲟⲧⲟⲧⲓ ⲕⲟⲗⲟⲧ ⲕⲟⲛⲗⲟⲗⲅⲟⲩⲗⲗⲟⲛ ⲧⲉⲕⲕⲟⲛⲟ
     ⲙⲉⲇⲇⲁ̄ⲅ̄ⲓⲥⲁⲛⲁ ⲡⲟⲧⲟⲧⲕⲁ ⲟⲩϣⲉⲛⲟⲩⲁ̄·

     [aggelos-ou kolot-ou [$_{rel}$ potot-i   kolot
     angel-J   seven-J   trumpet-J seven
     kon-l-o]]-l-gou-ll-on   tek-k-ono
     have-DET-PT1-DET-PL-DET-C 3PL-ACC-REFL
     medd-il-ŋ-is-ana   potot-ka   ouš-enoua
     ready-DET-INCH-PT2-3PL.PRED trumpet-ACC sound-FIN.2/3SG
     "And the seven angels who had seven trumpets readied themselves
     to sound the trumpet"

The attributive RC in this example clearly shows how the juncture
vowels basically appear inside the noun phrase as a placeholder
where we would otherwise expect number and case marking to
appear, which, however, no matter how heavy the noun phrase, al-
ways appears only at the right edge of the RC. The RC ⲡⲟⲧⲟⲧⲓ ⲕⲟⲗⲟⲧ
ⲕⲟⲛⲗⲟ- has two peculiar features. First, the accusative case marking
-ⲕⲁ that we would expect on ⲕⲟⲗⲟⲧ has been dropped (cf. ex. 20, be-
low). Perhaps this is a scribal error because the author conflated it
with the initial *kappa* of the verb, or perhaps we should interpret
the absence of the accusative case with the verb "to have" as an in-
termediate stage between ⲕⲟ- as an active verb with an object in the
accusative case, and -ⲕⲟ as an adjectival suffix, which is well attested
elsewhere.[31] The second curiosity is the appearance of the determin-
er -ⲗ behind the verbal root ⲕⲟⲛ- and before the preterite 1 suffix -ⲟ
(Browne marks it with a "*sic*"). Although a determiner in this posi-
tion has been regularly attested in case of, for example, modal suf-
fixes (e.g. ⲙⲉⲇⲇ-ⲗ̄-ⲅ- in the above example), its appearance directly
preceding a tense suffix is exceedingly rare.

3.1.1 Leftward movement: semantic restriction
Whereas in exx. 5–8, the RC followed the antecedent, it may also
precede it, as in Nobiin ex. 3. There are a few examples present in
the Old Nubian corpus that show this inverse order; as is clear from
the morphology, we are dealing here with a type of leftward move-
ment that seems to be semantically motivated, and that is restricted
to coreferential attributive RCs. This is also suggested by the Nobiin
exx. 1 and 3, where ex. 3 has a restricted meaning.[32]

9   [... [$_{rel}$ ... Verb-Tense/Asp]$_i$-Det [Antec t$_i$]]-Det/Num/Case

     Let us inspect this first example:

31 BROWNE, *Old Nubian Grammar*, §3.4.2. According to Jakobi (p.c.), in Andaandi the accusative
    case marker may sometimes be dropped in the context of the verb *ko*.
32 Isameddin Awad, p.c.

16

ⲧⲁ̅ⲗ̅ ⲟⲩⲛⲛⲟⲗ ⲙⲁⲣⲓⲁⲛ ⲉⲓⲅⲟⲛⲅⲁⲗⲉ ⲅⲟⲩⲇⲁⲗⲁ ⲕⲓⲁ̅   **10**

[[$_{rel}$ *till-ik*   *ounn-o*]$_i$-*l*   [*maria-n*   t$_i$]]-*n*   *eigon-gille*   M. 11.3–4

     God-ACC   bear-PT1-DET   Mary-GEN   icon-DIR   RTA 34

goudal-a   *ki-a*   ONG, §4.6d

run?-PRED   come-PRED

"Running toward the icon of Mary Theotokos"   **17**

Here the RC ⲧⲁ̅ⲗ̅ ⲟⲩⲛⲛⲟⲗ, which supposedly translates the common epithet "Theotokos," has as its antecedent and subject ⲙⲁⲣⲓⲁ-ⲛ, which itself is attributive to ⲉⲓⲅⲟⲛ-, marked with the genitive -ⲛ. Based on our observations in the previous section, we would expect a construction like *ⲙⲁⲣⲓⲁ ⲧⲁ̅ⲗ̅ ⲟⲩⲛⲛⲟⲛ. In this case, however, the entire RC has moved upward and supposedly adjoined to the determiner phrase. The question is what would motivate such movement. First of all, we may observe that in the current configuration, ⲙⲁⲣⲓⲁ- is in the scope of ⲧⲁ̅ⲗ̅ ⲟⲩⲛⲛⲟⲗ instead of the other way around. ⲧⲁ̅ⲗ̅ ⲟⲩⲛⲛⲟⲗ therefore restricts the meaning of ⲙⲁⲣⲓⲁ-; we are not dealing here with a Mary who happened to give birth to God, but rather with the God-bearing Mary. The leftward movement of the RC may therefore be semantically driven. Satzinger suggests that the position of these RCs left of the noun is comparable to adjectival constructions such as ⲅⲥ̅ⲥⲟⲩ ⲙⲏⲛⲁ "Saint Mina," although the juncture vowel -ⲟⲩ cannot appear on verbal forms. This however seems to be contradicted by the existence of a separate class of examples such as ⲁⲓ ⲉⲓ\ⲁ/ ⲡⲉⲥⲥⲓ ⲅⲁⲡⲉⲅⲟⲩⲕⲁ "the sins that I said" (ex. 20) and ⲉⲓⲧⲥ̅ⲥⲟⲩ ⲓ̅ⲏ̅ⲥⲟⲩⲅⲓ ⲭⲣⲓⲥⲧⲟⲥⲓⲕⲁ "Christ whom you sent" (ex. 21), which clearly show a juncture vowel instead of a determiner (see §3.3.1 below). The movement observed in ex. 10 should therefore have an analysis distinct from adjectives or RCs ending in a juncture vowel.[33]

The same type of movement may be observed in the following, slightly more complicated example:

ⲉⲓⲥⲕⲉⲗⲁⲇⲟ̆ⲁⲙⲥⲱ ⲉⲛ̅ ⲅⲁⲇⲕⲓ̅ⲡ̅ⲫⲉⲓ ⲅⲟⲟⲕ ⲕⲟⲛⲟ̆ⲓⲗ ⲁⲫⲉⲗ ⲕⲉⲙⲥⲱⲛⲅⲟⲩⲕⲁ ⲟⲩⲛⲥⲁⲗⲗⲁ   **11**

ⲉⲛⲕⲟⲩⲁⲛⲛⲱⲁ: P. QI 2 16.vii.2–6

eiskel-ad-j-amsō   [*ein*   *gad-kiññ-ei*   RTA 35

beseech-TR-FUT-PLACT-IMP.1PL   DEM.PROX   flesh-without-J

[[$_{rel}$ *ŋook*   *kon-j*]$_i$-*il*   [*añel*   t$_i$]] *kemsō*]-*n*-*gou-ka*

     glory.ACC have-PLACT-DET   living.being   four-PL-PL-ACC

ouns-illa   *en-kouannōa*

love-DAT   be-FIN.3PL

"Let us beseech these four incorporeal, glorious animals that they may abide in love"

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33   One example given by Browne seems to resist analysis: SC 18.5 ⲟⲩⲛⲟ̆ⲟⲩⲣⲓⲛ ⲧⲏ̅ⲙⲓⲅ[ⲟ]ⲩⲕⲁ ⲟⲩⲛⲕⲟⲩⲛⲕⲉⲣⲁⲛ ⲇⲟⲩⲧⲟ̆ⲟⲛⲛⲁ.

If we disregard the initial material in the phrase ⲉ̄ⲛ ⲅⲁⲇⲕⲯ̄ⲯⲉⲓ ⳟⲟⲟⲕ ⳡⲟⲛⲟ̄ⲗ ⲁⲯⲉⲗ ⳟⲉⲙⲥⲱ-, and focus our attention on the phrasal element ⳟⲟⲟⲕ ⳡⲟⲛⲟ̄ⲗ ⲁⲯⲉⲗ, we find a pattern similar to ex. 10. ⳟⲟⲟⲕ ⳡⲟⲛⲟ̄ⲗ has moved leftward and adjoined to the determiner phrase. As in the previous example, the motivation may have been semantic in nature, restricting the meaning of ⲁⲯⲉⲗ: the "glory-having creatures" instead of the non-restrictive "the creatures that have glory." We will have to leave the grammatical analysis of ⲉ̄ⲛ, ⲅⲁⲇⲕⲯ̄ⲯⲉⲓ, and ⳟⲉⲙⲥⲱ- aside for the moment, but let me briefly say that relative pronouns always appear in the topmost position of the determiner phrase, and numerals such as ⳟⲉⲙⲥⲱ- always appear phrase final. Note further that the suffix -ⲁⲇ in ⲉⲓⲥⲕⲉⲗⲁⲇⲟ̄ⲁⲙⲥⲱ here should be interpreted as the transitivizer -ⲁⲣ with regressive assimilation preceding the pluractional suffix -ⲟ̄. If it had been the future suffix -ⲁⲇ, it would have followed the pluractional suffix.

3.2 Non-coreferential attributive relative clauses

Non-coreferential attributive RCs are RCs in which the subject of the RC does not coincide with the antecedent. In Old Nubian, we can distinguish two subcategories, namely those in which the subject of the RC is overtly expressed (Satzinger's "Type B1"), and those in which it is not (Satzinger's "Type B2"). Whereas these RCs behave similarly when in situ, we will discover that under extraposition this difference becomes morphologically explicit (§6). Also differently from coreferential attributive RCs, non-coreferential ones may feature a relative pronoun, either ⲉⲓⲛ "this" or ⲙⲁⲛ "that."[34] Another difference is that non-coreferential attributive RCs cannot move to the left of the antecedent, as described in §3.1.1.

3.2.1 Non-coreferential with an overt subject in RC

In case the subject of the RC is overtly expressed, it nearly always appears in the genitive case, whereas the verb usually shows no agreement, therefore appearing similar to the embedded verbal forms found in coreferential attributive RCs.

12   [… Antec-J [$_{rel}$ (Rel) [Subj-GEN Verb-Tense/Asp]]]-Det/Num/Case

13   ⲕⲟⲩⲙⲡⲟⲩ ⲉⲛ ⲧⲁⲛ`ⲛⲁ ⲕ̄ⲡⲥ̄ⲗ ⲇⲟⲩⲙⲁⲗ ⲇⲟⲩⲧⲣⲁⲡ` ⲁ̄ⲯⲣⲁⲅⲁ

[*koumpou* [$_{rel}$ *ein* [*tan-na*   *kip-s*]]]-*il*
  egg   REL   3SG-GEN   eat-PT2-DET
doumal   doutrap añ-r-aŋ-a
suddenly fowl   live-TR-INCH-PRED
"The egg that he had eaten suddenly coming to life as a fowl"

34 See PAYNE, *Describing Morphosyntax*, p. 333. I have been unable to find any semantic or syntactic constraint on their distribution.

We find here a non-coreferential attributive RC with a relative pronoun ⲉ̄ⲛ in the topmost position. The subject of the RC ⲧⲁⲛ`ⲛⲁ ⲕⲏⲥ-, ⲧⲁⲛ`ⲛⲁ, is marked with the genitive case, and the entire clause is marked on the right edge with a determiner -ⲗ̄. Note also that the juncture vowel that we expect after ⲕⲟⲩⲙⲡⲟⲩ has been dropped after -ⲟⲩ.

ⲁⲛⲕⲧⲁⲛⲅⲟⲩⲕⲁ ⲟⲩⲥⲕⲁⲣ̄[ⲥ]ⲛⲁ ⲧⲉⲣⲛ̄ ⲁ̄ⲉⲗⲁⲩⲁ̄ ⲟⲫⲛ̄ ⲡⲁ[ⲣ]ⲕⲟⲩ ⲏⲛ ⲉⲓⲣⲛ̄ ⲁⲟⲩⲥⲗⲱ   **14**
anktan-gou-ka   ouskar-isna   ter-in   aei-laua   P. QI 1 2.ii.8–10
concern.PL-PL-ACC place.TR-PT2.2/3SG.PRED3PL-GEN heart-within   RTA 8
[*oñ-in   park-ou* [$_{rel}$ *ēn* [*eir-in   aou-s*]]]*-lō*   ONG §4.6a
  tear-GEN valley-J   REL   2SG-GEN make-PT2-LOC
"He placed concerns within their heart in the valley of tears that you made." (*Ps.* 83:5–6)

Apart from the slightly erroneous translation of Psalm 83:5–6, which inter alia seems to omit a rendering of ἀναβάσεις and mis-interprets αὐτοῦ as ⲧⲉⲣⲛ̄, the clause itself is grammatical and the attributive construction straightforward. The RC with overt subject ⲏⲛ ⲉⲓⲣⲛ̄ ⲁⲟⲩⲥ- "that you made" has as its antecedent ⲟⲫⲛ̄ ⲡⲁ[ⲣ]ⲕⲟⲩ, ending in a juncture vowel. The embedded verb ⲁⲟⲩⲥ- shows no agreement marking because of the overt subject. Finally the locative marker -ⲗⲱ is attached to the entire noun phrase on the right edge. Satzinger suggests, pace Browne, that ⲁⲟⲩⲥⲗⲱ ought to be analyzed as **aous-il-lō*, with some type of regressive assimilation. However, none of the extant forms in the Old Nubian corpus suggest that this analysis is correct, nor that it is necessary; the *-(i/e)l* that Browne and Satzinger assume as the marker of the participle or "verbid" only appears in a nominative context as a determiner, and forms no intrinsic part of any "participial" morphology.

3.2.2 *Non-coreferential without an overt subject in RC*
In case the subject of the RC is not overtly expressed, we find agreement marking on the main verb of the RC. The following pattern emerges:

[… Antec-J [$_{rel}$ (Rel) [Verb-Tense/Asp/Agr]]]-Det/Num/Case   **15**

ⲉ̄ⲗⲟⲛ ⲙⲏⲥⲧⲏⲣⲟⲩ ⲉ̄ⲕⲕⲁ ⲉ̄ⲕⲓⲇⲣⲟⲩⲕⲁ ⲟⲩⲕⲁ ⲡⲗ̄ⲗⲓ̈ⲅⲣⲁ̄ ⲇⲉⲫ̄ⲟ̄ⲉⲥⲟ   **16**
el-on [*mēstēr-ou* [$_{rel}$ *eik-ka   ekid-rou*]]*-ka   ou-ka*   St. 5.4–7
now-C   mystery-J   2SG-ACC   ask-PRS.1/2PL-ACC   1PL-ACC   RTA 5
pill-igr-a   deñ-j-eso   ONG §4.6a
shine-CAUS-PRED give.1-PLACT-IMP.2SG
"And now reveal us the mystery that we ask you about"

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depends on whether the attributive ʀᴄ ïⲁⲕⲱⲃⲓⲛ […] ⲟⲩⲥⲥⲛ̄ⲇⲉⲕⲉⲗⲕⲁ is interpreted as the object of ⲅⲁⲥⲇⲁⲣⲁⲥⲛ̄ or of ⲥⲉⲩⲁ̄ⲉⲅⲁⲣⲁ. Browne opts for neither, translating with the rather puzzling "God chose us, making (us) his heirs and the beauty of Jacob, which he loved," somehow attempting to coordinate ⲥⲉⲩⲁ̄ⲉⲅⲁⲣⲁ with the ʀᴄ, ignoring the accusative case marker. If ⲟⲩⲕⲁ is interpreted as the direct object of ⲅⲁⲥⲇⲁⲣⲁⲥⲛ̄, the entire attributive ʀᴄ ïⲁⲕⲱⲃⲓⲛ […] ⲟⲩⲥⲥⲛ̄ⲇⲉⲕⲉⲗⲕⲁ can only be read as an object to the verbal root ⲥⲉⲩ- "inherit," with possibly the nominalizing predicative plural suffix -ⲁ̄ⲉ,[37] causative, and predicative suffix. The interpretation of the attributive construction itself is straightforward. The ʀᴄ ⲏⲛ` ⲟⲩⲥⲥⲛ̄- is dependent on the antecedent ïⲁⲕⲱⲃⲓⲛ ⲅⲁⲇⲇⲟⲩⲣ, here without a juncture vowel because of the presence of the clause-initial relative pronoun ⲏⲛ.

In a few rare cases, we find that both the genitive subject and person morphology on the verb may be overt in the ʀᴄ:

ⲉ̄ⲗⲟⲛⲇⲉⲉⲓⲟⲛ ⲇⲉⲕⲕⲓⲅ̄ⲣ̄ⲙⲉⲛⲇⲣⲉ̄ⲗⲟ· ⲅⲉⲉⲓⲟⲩ ⲉⲛ̄ ⲟⲩⲛⲛⲁ ⲁⲓⲕⲁ ⲉ̄ⲕⲓⲇⲣⲟⲩⲕⲟⲛ

elon-de-eeion	*dekk-igir-men-dre-lo*		[*ŋeei-ou* [_{rel} *ein*
now-c-c	conceal-ᴄᴀᴜꜱ-ɴᴇɢ-ꜰᴜᴛ.1ꜱɢ.ᴘʀᴇᴅ-ꜰᴏᴄ		thing-ᴊ ʀᴇʟ
[*oun-na*	*ai-ka*	*ekid-rou*]]]-*k-on*	
1ᴘʟ.ᴇxᴄʟ/2ᴘʟ-ɢᴇɴ	1ꜱɢ-ᴀᴄᴄ	ask-ᴘʀꜱ.1/2ᴘʟ-ᴀᴄᴄ-ᴄ	

"And now also I will not conceal the thing that you asked me"

The ʀᴄ, indicated by the relative pronoun ⲉⲛ̄ has as its antecedent ⲅⲉⲉⲓⲟⲩ, ending in a juncture vowel, and the entire attributive ʀᴄ is the object of the verb ⲇⲉⲕⲕⲓⲅ̄ⲣ̄ⲙⲉⲛⲇⲣⲉ̄ⲗⲟ. What is curious about the ʀᴄ is that it features both an overt subject ⲟⲩⲛⲛⲁ in the genitive case and the verb ⲉ̄ⲕⲓⲇⲣⲟⲩ-, with overt person morphology. Satzinger suggests an interpretation of this double occurrence of overt subject and agreement marking by supposing a disambiguation strategy, mistakenly assuming that ⲟⲩⲛⲛⲁ is exclusively the genitive-marked pronoun for the second person plural, which is not the case. So neither the overt subject, nor the overt person marking disambiguates the other; it is the indirect object ⲁⲓⲕⲁ that makes a reading "the thing that we (ᴇxᴄʟ) asked myself" rather implausible.

3.3 More on the left

There are several examples of non-coreferential attributive clauses appearing in a position that precedes the antecedent. In these cases we are dealing with two patterns. In the first pattern, ʀᴄs seem to have been generated in situ, and are marked with the juncture vowel that we normally find on the antecedent when it precedes the ʀᴄ, whereas the antecedent is marked with the customary number and

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37 Bʀᴏᴡɴᴇ, *Old Nubian Grammar*, §3.5.2e.

case marking (§3.3.1). In these cases, the RC seems to appear in the position of the adjective. The second pattern, which only occurs in the case of RCs of time, place, and manner, the RC is either generated in the position of the possessor, or is moved there, being marked by the genitive case (§3.3.2).

22

3.3.1 Preceding non-coreferential attributive RCs

As we have seen in §3.1.1, preceding coreferential attributive RCs are the result of movement driven by semantics. These clauses also show a specific morphological pattern, always being marked by the determiner -ⲗ. There is, however, also a small class of examples that feature a non-coreferential RC preceding its antecedent, which seems to be constructed in a way similar to phrases such as ⲅⲟ̄ⲥⲟⲩ ⲙⲏⲛⲁ, where the adjective precedes the noun.

20
gr. 4.1–2
RTA 38

ⲡⲉⲧⲣⲟⲥⲓ̈ ⲅⲁⲣⲙⲓ ⲍ̄ⲧⲛ̄ ⲧⲉⲣⲉⲅⲟⲩⲕⲁ ⲕⲟ⳨ⲟ̄ⲣⲁ· ⲁⲓ ⲉⲓ`ⲁ´ ⲡⲉⲥⲥⲓ ⲅⲁⲡⲉⲅⲟⲩⲕⲁ
ⲧⲟⲕⲁⲣⲁ·

petros-i   harm-i   kolotit-in   tere-gou-ka   koñ-j-ra
Peter-J   heaven-J   seventh-GEN   key-PL-ACC   have-PLACT-PRS.PRED
[[_rel_ *ai   ei-a   pes-s]-i   ŋape]-gou-ka   tok-ar-a*
        1SG   say-PRED   say-PT2-J   sins-PL-ACC   forgive-PT1-PRED
"Peter, who has the keys of the seventh heaven, who has forgiven the sins that I have said"

This complex example from one of Griffith's graffiti contains several RCs which we will inspect in more detail below in ex. 62. Note here, however, the attributive relative construction ⲁⲓ ⲉⲓ\ⲁ/ ⲡⲉⲥⲥⲓ ⲅⲁⲡⲉⲅⲟⲩⲕⲁ, the object of ⲧⲟⲕⲁⲣⲁ. It seems to be the case that the non-coreferential RC ⲁⲓ ⲉⲓ\ⲁ/ ⲡⲉⲥⲥⲓ precedes its antecedent ⲅⲁⲡⲉⲅⲟⲩⲕⲁ. Moreover, unlike the examples in §3.1.1, it is marked by a juncture vowel -ⲓ and not by a determiner, and its subject appears in the nominative instead of in the genitive case. Another example shows a similar pattern:

21
SC 9.13–14
OND §4.6a

ⲉⲓⲁ̄ⲣⲓ· ⲟⲛ ⲉⲓⲧⲅ̄ⲥⲟⲩ ⲓ̈ⲏ̄ⲥⲟⲩⲥⲓ ⲭⲣⲓⲥⲧⲟⲥⲓⲕⲁ
eiar-i   on [[_rel_ eit-iss]-ou iēsous-i   khristos]-ika
know-PRED? C   send-PT2-J   Jesus-J   Christ-ACC
   "And to know Jesus Christ whom you sent" (*Jn.* 17:3)

Again this is an example taken from a larger, more complex sentence (ex. 79). But as in ex. 20 we may notice the non-coreferential attributive RC ⲉⲓⲧⲅ̄ⲥⲟⲩ preceding its antecedent ⲓ̈ⲏ̄ⲥⲟⲩⲥⲓ ⲭⲣⲓⲥⲧⲟⲥⲓⲕⲁ. In both cases, an explanation as in §3.1.1 seems unlikely, in the sense that the marking of the RCs and antecedents follow exactly the same pattern as in exx. 5–8, albeit with RC and antecedent in reverse order. Also the fact that the RC in ex. 20 shows a nominative subject,

suggests that we are dealing here with a different type of construction. However, there is not enough Old Nubian data and an absence of comparative data from modern Nile Nubian languages to allow for a full explanation.

3.3.2 *Non-coreferential relative clauses of time, place, and manner*

As already suggested by Browne and Satzinger in their respective treatments of RCs, expressions of place and time follow a different template, in which the RC is marked with a genitive case and always precedes its antecedent.

ⲙⲁⲣⲓⲟⲛ ⲓ̅ⲏ̅ⲥⲟⲩⲥⲛ̅ [ⲇ]ⲟⲩⲉ̄ⲥⲛ̅ ⲅⲟⲩⲗⲗⲟ{ⲛ} ⲕⲓⲉⲛ

mari-on [[*rel* *iēsous-in* *dou-es]-in* *goul]-lo* *ki-en*
Mary-c   Jesus-GEN be-PT2-GEN place-LOC come-PRS.2/3SG
"And when Mary came to the place where Jesus stayed"

22
P. QI 1 4.11.1–2
RTA 45

The attributive relative construction could also be literally translated as "to the place of Jesus's staying," and is otherwise grammatically unremarkable. The following examples provide further illustration:

ⲧⲉⲛⲛⲁ ⲇⲟⲩⲉ̄ⲥⲛ̅ ⲧⲁⲩⲕⲁ ⲙ̅ⲟ̅ⳝⲁⲛⲛⲟ[ⲉⲓⲟ]ⲛ ⲟⲩⲉ̄ⲣⲟⲩⲉⲗⲇⲁⲗ ⲅ̅ⲧⲧⲁⲥⲥⲁⲛⲁ·

[[*rel* *ten-na* *dou-es]-in* *tauk]-a* *miššan-no-eion*
     3PL-GEN be-PT2-GEN time-PRED all-FOC-C
ouerouel-dal   *gittas-sana*
each.other-COM be.like?-PT2.3PL.PRED
"And all the time that they existed they were like each other"

23
P. QI 2
10.A.ii.9–10
RTA 46

[ⲓ]ⲉⲣⲟⲩⲥⲁⲗⲓⲙⲕⲁ ⲉⲕⲕⲁ̅ ⲇⲁⲥⲁⲛ ⲧⲁⲩⲕ[ⲗ]ⲟⲉⲓ<ⲟ>ⲛ·

[[*rel* *ierousalim-ka* *ekkid* *da-san]* *tauk]-lo-eion*
     Jerusalem-ACC be.near.TR be-PT2.3PL.GEN time-LOC-C
"And at the time that they were near Jerusalem"

24
P. QI 2 14.i.1–2
RTA 47

Note that in this example the genitive -ⲛ has merged with the tense/person marker -ⲥⲁⲛ.

ⲧⲁⲣⲓⲟ̄ ⲟ̅ⲟⲟ[ⲕⲕ]ⲁ ⲕⲁⲡⲉⲥⲟⲩⲛ ⲟⲩⲕⲟⲩⲣⲣⲱ

[*rel* [Ø [*rel* *tar-io* *joo]]-k-ka* *kap-es-ou]-n* *oukour-rō*
          3SG-LOC go-DET-ACC eat-PT2-2PL-GEN day-LOC
"On the day that you have eaten that which comes from it"[38]

25
SC 21.3–4
OND §4.6c

The same strategy may be observed in Nobiin, where RCs of place and time always seem to precede their antecedents, and are marked with the genitive case. For example:

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38 This example contains a free relative clause, see §4.

26
CF 547
Nobiin

an-uu	ii	[*rel* ir-iin	kora-ga
1SG.POSS-grandfather	NOM	2SG-GEN	football-ACC

batar-ee]-n   agar   aag-i
play-COMP1-GEN   place   stay-PRS.3SG

"My grandfather is staying at the place where you play football"

As in the Old Nubian examples above, the antecedent *agar* follows the RC *iriin koraga bataree-n*, which is marked by a genitive. Note, however, that this pattern, which in Old Nubian is only found in case of RCs of place and time, seems to have been generalized in later stages of language development until the attributive RC construction of RC + genitive preceding the antecedent became a commonly accepted pattern for all restrictive RCs (cf. Nobiin ex. 3).

In the same context, Awad's discussion of RCs of manner in Nobiin also allows us to shed light on an otherwise obscure construction in what Browne identifies as the Old Nubian version of a homily attributed to St. John Chrysostom:

27
SC 9.18–21
RTA 41
ONG §4.6C

ⲧⲁ̄ⲗⲕ̄ ⲁⲩⲣⲟⲩⲧⲕⲁ ⲁⲛⲕⲓⲙⲓⲛⲉⲥⲟ· ⲅⲁⲇⲁⲅⲉⲥⲛ̄ⲛⲁ ⲁⲕ[ⲇ]ⲁⲧ`ⲧⲟⲩ ⲁⲩⲣⲟⲩⲧⲕⲉⲛⲇⲉ·
ⲁ̄ⲇⲛ̄ⲕⲁⲛⲅⲟⲩⲕⲁ ⲟⲩⲉ̂ⲣⲓⲅⲁⲣⲉⲥⲓⲕ[ⲉⲛⲕⲱ]·

till-ik   aurout-ka   ank-imin-eso
God-ACC   alone-ACC   consider-NEG-IMP.2SG

[[rel gad-aŋ-es-in]-n-a   akdatt]-ou   aurout-k-ende
    flesh-INCH-PT2-3SG-GEN-PRED   order?-J   alone-ACC-C

adinkan-gou-ka   ouer-igar-es-ik-enkō
both-PL-ACC   one-CAUS-PT2-ACC-but

"Don't consider God alone, nor only the order in which he became flesh, but both as made one"

The syntax of this fragment is complicated, as there is only one main verb, ⲁⲛⲕⲓⲙⲓⲛⲉⲥⲟ, with object ⲧⲁ̄ⲗⲕ̄ and its apposition ⲁⲩⲣⲟⲩⲧⲕⲁ. In the second part of the sentence the same verb is implied, with the entire clause ⲅⲁⲇⲁⲅⲉⲥⲛ̄ⲛⲁ ⲁⲕ[ⲇ]ⲁⲧ`ⲧⲟⲩ ⲁⲩⲣⲟⲩⲧⲕ- as object. In the third part the object of the implied verb is ⲁ̄ⲇⲛ̄ⲕⲁⲛⲅⲟⲩⲕⲁ. ⲟⲩⲉ̂ⲣⲓⲅⲁⲣⲉⲥⲓⲕ- here is technically not an extraposed RC (see §6), but rather an apposition just like ⲁⲩⲣⲟⲩⲧⲕⲁ, in a construction "consider *x* as *y*." The form ⲅⲁⲇⲁⲅⲉⲥⲛ̄ⲛⲁ in the second part of the clause, however, seems more puzzling. If we followed Browne and translate ⲅⲁⲇⲁⲅⲉⲥⲛ̄ⲛⲁ ⲁⲕ[ⲇ] ⲁⲧ`ⲧ- as "construction that became flesh" (his Greek retrotranslation has οἰκονομίαν for ⲁⲕ[ⲇ]ⲁⲧ`ⲧ-) we would not expect to find a coreferential attributive RC to precede with this type of complex morphology: no agreement ought to be present in coreferential attributive clauses (cf. §3.1.1), and the -ⲛⲁ suffix would remain completely unexplained. If we would apply our observations thus far, we would conclude that ⲅⲁⲇⲁⲅⲉⲥⲛ̄ⲛⲁ must be a non-coreferential attributive

RC, and Browne's translation of ⲁⲕ[ⲇ]ⲁⲧˋⲧ- as "construction" and subject of ⲅⲁⲇⲁⲅⲉⲥⳠⲛⲁ is incorrect. Moreover, it follows none of the patterns observed in §3.3.1; in that case we would expect something like *gadaŋesi akdatt-*. The only remaining option is that we are dealing with some type of RC of place, time, or manner, which ends in a genitive and precedes its antecedent. This assumption allows us to explain the agreement suffix -ñ (the RC is non-coreferential without explicit subject), the subsequent genitive -N (RC of time, place, or manner), and its position in front of the antecedent. However, the -ⲁ would remain unaccounted for; in exx. 22–5 the genitive case always appeared as -(ı)N. If we observe the following example from Nobiin, however, it becomes clear that we are dealing here with a predicative -ⲁ, which may have been preserved in Nobiin in RCs of manner as a same-subject converb:

man	ideen	an-een	aaw-ee-n		a	kir	28
DEM.DIST	woman	1SG.POSS-mother	do-COMP1-GEN		SSC	way	
jelli-ga	aaw-i						CF 551
job-ACC	do-PRS.3SG						Nobiin

"The woman does her job in the same way as my mother does"[39]

We may observe here that the RC *aneen aaween-a* preceding the antecedent *kir* is marked by both the genitive and *a,* here glossed as same-subject converb. However, recall that one of the functions of the Old Nubian predicative suffix -ⲁ is precisely marking verbs with the same subject. I suggest that the same is the case in ex. 27, and that consequently the translation of ⲁⲕ[ⲇ]ⲁⲧˋⲧ- in ex. 26 as "construction" is erroneous. In his *Old Nubian Dictionary,* Browne rightly observes that we are probably dealing with some type of nominalized form with -ⲧ of the habitual verb ⲁⲕ-, or its derivative ⲁⲕⲇⲁⲕ- "to set up," which already suggests a mode or manner of doing things. The suggested Greek retrotranslation οἰκονομίαν suggests something similar. I have therefore opted here tentatively for the neutral translation "order" while suggesting that just like in Nobiin ex. 28 we are dealing with a RC of manner.

3.4 Anaphors
According to the head raising analysis of RCs, antecedents of an RC are originally generated within the RC and subsequently move up to a higher (in the case of Old Nubian, leftward) position. Without delving into the technical details, this movement may explain the appearance of the juncture vowel that we mentioned before, and the fact that the neutral position of attributive clauses seems to be

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39   Cf. also Awad, *The Characteristic Features of Non-Kernel Sentences in Nobiin,* ex. 633.

following the noun, rather than preceding it. It also predicts that there are certain syntactic positions within the RC, organized on a hierarchical scale,[40] that do not allow for relativization, such as possessor and postposition phrases. Old Nubian seems to conform this generalization: subjects and objects can be relativized (also called extracted), whereas other syntactic functions cannot.[41] In case relativization is impossible, we find an anaphor – also called PRO or "resumptive pronoun"[42] – which in Old Nubian is always a form of the third person singular pronoun ⲧⲁⲣ.

29a
P. QI 1 1.i.7–8
RTA 4

ⲁ̄ⲅⲉⲛⲇⲁⲗⲱ ⲉⲓⲧⲟⲩ ⲅⲟ[ⲇⲓⲛⲁ] ⲧⲁⲛ ⲅⲁⲡⲉⲅⲟⲩⲕⲁ ⲁⲛⲕⲓⲟ̆ⲙⲉⲛⲇⲉⲗ

agend-a-lō   [eit$_i$-ou [$_{rel}$ ŋod-ina   tan$_i$ ŋape-gou-ka
blessed-PRED-FOC man-J   lord-GEN 3SG.GEN sin-PL-ACC
ank-ij-men-d]]-el
remember-PLACT-NEG-FUT-DET
"Blessed is the man whose sins the Lord will not remember"
(Ps. 31:2)

29b
RCA 14a
Andaandi

in   tannan [ogij$_i$ [$_{rel}$ tenn$_i$ ossi
DEM.PROX COP   man   3SG.GEN leg
bud-s-in-tirti]]
dislocated-PT2-3SG-HUM.COMP
"This is the man whose leg was dislocated"

Ex. 29a follows the pattern of non-coreferential attributive clauses discussed in §3.2.1, but this time we find an anaphor ⲧⲁⲛ "his" coindexed with the antecedent ⲉⲓⲧⲟⲩ, as possessor phrases do not allow extraction. The same occurs in Andaandi in ex. 29b, where we find the anaphor tenn in a similar position. Anaphors also appear in the case of oblique phrases such as locatives:

30a
P. QI 1 1.ii.4–5
ONG §4.6a

…]ⲅⲁⲇⲇⲣⲉ· ⲇⲁⲩ ⲉ̄ⲛ ⲧⲁⲣⲓⲟ ⲟ̆ⲱⲉⲛⲛⲱ·

-gad-d-re   [dau$_i$ [$_{rel}$ ein [tar$_i$-io   jō-en]]]-nō
-CAUS-FUT-PRS.1SG.PRED path   REL 3SG-LOC go-PRS.2/3SG-LOC
"I will [guide (*vel sim.*) you] on the path on which you go" (Ps. 31:8)

30b
RCA 17b
Andaandi

in   tannan [beled$_i$ [$_{rel}$ ay ter$_i$=do   ogol=lo
DEM.PROX COP   country   1SG 3SG=LOC before=LOC
taa-s-i]]
come-PT2-1SG

40 See KEENAN & COMRIE, "Noun Phrase Accessibility and Universal Grammar."
41 Owing to a lack of examples, it is unclear whether indirect objects can be extracted, that is, can become an antecedent to an RC in which its syntactical function would be that of an indirect object, e.g. "the person John wanted to give a present to."
42 JAKOBI & EL-GUZUULI, "Relative Clauses in Andaandi," p. 97.

"This is the country to which I came before"

Just like ⲉⲓⲧⲟⲩ in ex. 29a, ⲇⲁⲩ cannot be extracted from a postpositional phrase in the RC, which is the reason why we find the locative-marked anaphor ⲧⲁⲣⲓⲟ. Browne's suggestion that ⲉⲛ is here a postponed "regular" demonstrative pronoun is erroneous; demonstrative pronouns in Old Nubian never follow nominal heads. The same construction can be found in Andaandi, ex. 30b. A similar anaphor construction is found in the next example, which however cannot be faithfully rendered in English:

ⲕⲟⲉⲣ̄ ⲉⲛ ⲉⲗ ⲧⲁⲣⲓⲟ̄ ⲟ̄ϣⲟⲕ[ⲕⲁ] ⲕ[ⲁ]ⲡⲁⲧⲁⲙⲏⲁ

$[koeir_i \; [_{rel} \; ein \; [\; el \quad tar_i\text{-}io \quad j\bar{o}o]]]\text{-}k\text{-}ka$
tree   REL   now   3SG-LOC   go-DET-ACC
$kap\text{-}a\text{-}tam\bar{e}\text{-}a$
eat-PRED-VET.2SG-QUOTE

"'Do not eat that which now comes from the tree' (lit. 'do not eat the tree which now comes from it')"

Finally, anaphors also appear in contexts i

n which raising is impossible due to intervening constituents, such as adjectival phrases:

ⲇⲟⲩⲕⲛ̄ⲙⲉ ⲏⲛ ⲉⲅⲅⲁⲛⲉ ⲅⲟⲟⲕⲕⲟⲗ ⲧⲛ̄ⲗⲓⲗⲟⲕⲱ ⲧⲁⲣⲟⲩ ⲉⲓⲧⲁⲕⲗ̄ⲕⲁ

$douk\text{-}imme \quad\quad [\; \bar{e}n \quad\quad e\eta gane_i \quad\quad \eta ookko\text{-}l$
pay.homage-AFF.1SG   2SG.GEN   brotherhood   glorious-DET
$[_{rel} \; till\text{-}ilok\bar{o} \; tar_i\text{-}ou \; ei\text{-}tak]]\text{-}il\text{-}ka$
    God-by   3SG-J   bless-PASS-DET-ACC

"I pay homage to your glorious brotherhood, blessed by God"

In this example, the adjective ⲅⲟⲟⲕⲕⲟⲗ intervenes between the antecedent ⲉⲅⲅⲁⲛⲉ and the RC ⲧⲛ̄ⲗⲓⲗⲟⲕⲱ ⲧⲁⲣⲟⲩ ⲉⲓⲧⲁⲕⲗ̄-, hence the appearance of the anaphor ⲧⲁⲣⲟⲩ.

The strategies of exx. 31 and 32 may also appear together:

ⲉⲇⲇⲣⲱ ⲕⲁⲟ̆ⲕⲁ ⲉ̆ⲛ ⲇⲓⲅⲗ̄: ⲉⲗ ⲧⲁⲇⲟⲩ ⲉⲓⲅⲟⲩⲗⲁ [ⲟ]ⲩⲉⲛⲛⲁ ⲧⲁⲇⲇⲱ ⲁⲕⲓⲙⲛ̄ⲥⲥⲓⲕⲁ·

$ed\text{-}d\text{-}r\bar{o} \quad\quad\quad [\; kaj_i\text{-}ka \quad [_{rel} \; ein \; [\; dig]]]\text{-}el$
find-FUT-PRS.2PL   colt-ACC   REL   bound-DET
$[_{rel} \; eil \quad tad_i\text{-}ou \; [\; ei\text{-}gou\text{-}la \quad\quad ouen\text{-}na \; tad_i\text{-}d\bar{o} \quad ak\text{-}imis\text{-}s]]\text{-}ika$
    now   3SG-J   man-PL-DAT   one-GEN   3SG-upon   sit-NEG-PT2-ACC

"You will find a colt that is bound, one upon which no one among men has yet sat" (*Mk.* 11:2)

In this example, ⲕⲁⳝⲕⲁ is coindexed with both ⲧⲁⲗⲟⲩ and ⲧⲁⲗⲗⲱ in the RC dependent on it, in the first case because of the intervening RC ⲉ̣ⲛ̄ ⲁⲓⲅ̅, and in the second case because ⲧⲁⲗⲗⲱ is an inaccessible postpositional phrase. Note also that the accusative case ending on ⲕⲁⳝⲕⲁ is unexpected. Owing to a lack of comparative evidence I am unable to suggest an explanation, but see the commentary to ex. 89 for further discussion.

28

4. Free relative clauses

Free or headless RCs have no overt antecedent, but are otherwise syntactically similar to the coreferential and non-coreferential examples discussed in §1. Whereas Satzinger does not discuss them separately, and subsumes them under his main types "A" and "B," Browne treats them separately in *Old Nubian Grammar*, §4.7.1. Headless RCs may further be subdivided into subject clauses (§4.1); object clauses (§4.2), which include different types of complement clauses (§4.2.1–2); and free RCs in other, oblique positions (§4.3). Unlike non-coreferential attributive clauses, free RCs are never introduced by a relative pronoun.

4.1 Subject clauses

Subject clauses are RCs that in their entirety, i.e., without antecedent, form the subject of a sentence.

34

P. QI 1 2.ii.3–4
RTA 10

ⲁⲅⲉⲛⲇⲁⲅⲟⲩⲗⲱ ⲉⲓⲣⲛ̄ ⲅⲟⲅⲗⲁ ⲇⲟⲩⲗⲅⲟⲩⲗ

agend-a-gou-lō   [∅ [$_{rel}$ *eir-in*   *ŋog-la*   *dou*]]-*l-gou-l*
blessed-PRED-PL-FOC   2SG-GEN house-DAT exist-DET-PL-DET

"Blessed are those who stay in your house"

Satzinger includes this example as a "Type A" RC, interpreting ⲁⲅⲉⲛⲇⲁⲅⲟⲩⲗⲱ as an antecedent, but when compared to ex. 29 it becomes clear that we are dealing here with a subject clause, that is, a free RC without antecedent. The entire RC ⲉⲓⲣⲛ̄ ⲅⲟⲅⲗⲁ ⲇⲟⲩ- is the subject of the adjectival predicate ⲁⲅⲉⲛⲇⲁⲅⲟⲩⲗⲱ, which agrees in number with the subject. The same holds for the following example quoted by Satzinger as an attributive RC, which in fact appears to be a coordinated subject clause:

ⲉⲛ̄ ⲉ̄ⲥⲥⲁⲛⲁ ⲅⲁⲣⲙⲓⲧⲛ̄ ⲉⲓⲅⲟⲛⲕⲁ ⲇⲟⲩⲕⲁ̄ⲅⲟⲩⲗ ⲧⲁⲛ ⲧⲁⲅⲥⲛ̄ ⲉⲁ̄ⲕⲟⲛ ⲧⲉⲛ ⲕⲟ⳽ⲛ̄
ⲧⲛ̄ⲛⲁⲧⲧⲁ̄ⲇⲱ ⲉⲧⲧⲟⲗⲅⲟⲩⲗ·

ein	*eis-sana*	[∅ [*rel* *ŋarmit-in*	*eigon-ka*	35
DEM.PROX	be-PT2.3PL.PRED	beast-GEN	image-ACC	*P. QI* 1 9.i.16–20
douk]]*-il-gou-l*				RTA 11
worship-DET-PL-DET				ONG §4.6a

[∅ [*rel* *tan*   *taŋs-in*   *eid-k-on*   *ten*   *koñ-in*
     3SG.GEN name-GEN sign-ACC-C 3PL.GEN face-GEN   29
tinnatt-iddō   *ett-o*]]*-l-gou-l*
front.NMLZ-upon receive-PT1-DET-PL-DET
"Those have been the ones who worship the image of the beast, who received the sign of his name upon their forehead." (*Rev.* 14:9)

Just like the previous example, the interpretation here is straight-forward. The subjects of ⲉⲥⲥⲁⲛⲁ are two subject clauses coordinated by the suffix -ⲟⲛ in the noun phrase ⲧⲁⲛ ⲧⲁⲅⲥ̄ⲛ ⲉ̄ⲇ̄ⲕⲟⲛ. Both subject clauses are fully marked with a plural suffix and the double determiner construction we have seen previously.

A final example is slightly puzzling, in the sense that we are not strictly dealing with a subject sentence, but rather with a sentence that as a whole seems to have been nominalized:

ⲉⲛ̄ⲛ̄ⲛ̄ⲕⲁ ⲟⲩ[ⲇ]ⲅⲓⲗⲗⲉ ⲡⲉⲥⲓⲇⲉⲣⲗ̄   36
[∅ [*rel* *einnin-ka*   *oud-gille*   *pes-ij-eri*]]*-l*   L. 106.4–5
    DEM.PROX.PL-ACC 2PL-DIR say-PLACT-PRS.1SG-DET   ONG §4.5.1b
"(The fact that) I say these things to you" (*Jn.* 16:33)

To take ⲉⲛ̄ⲛ̄ⲛ̄ⲕⲁ here as the antecedent of the RC ⲟⲩ[ⲇ]ⲅⲓⲗⲗⲉ ⲡⲉⲥⲓⲇⲉⲣⲗ̄ makes no sense, as it would not be marked with the accusative case (but cf. ⲕⲁⲇ̄ⲕⲁ in ex. 33); it can be nothing but the direct object of ⲡⲉⲥⲓⲇⲉⲣⲗ̄. However, this leaves the occurrence of the determiner -ⲗ unexplained. Perhaps the scribe was attempting to render the perfect tense found in the Greek (ταῦτα λελάληκα ὑμῖν) by nominal-izing the entire sentence. Again, lack of comparative evidence pre-vents further speculation.

4.2 *Object clauses*
Object clauses follow the same pattern as subject clauses, but are ob-viously marked by the accusative case -ⲕⲁ, sometimes preceded by the determiner -ⲗ. As yet it remains unclear in which contexts the determiner may precede the accusative suffix.

37

ⲦⲀⲖⲚ̄ ⲦⲀⲄⲤⲖⲆⲞ ⲀⲨⲞⲨⲆⲞⲨⲔⲀ ⲔⲞⲨⲢⲢⲀⲚⲖⲞ ⲀⲨⲞⲨⲆⲀⲚⲀⲤⲰ·

[Ø [*rel* *till-in*   *taŋs-il-do*   *auou-j-ou*]]-*ka*
      God-GEN name-DET-in   do-PLACT-PRS.2PL-ACC

kourran-lo   *auou-j-anasō*
joyful-LOC   do-PLACT-IMP.3PL

"Do the things you do in God's name joyfully"

The free RC ⲦⲀⲖⲚ̄ ⲦⲀⲄⲤⲖⲆⲞ ⲀⲨⲞⲨⲆⲞⲨⲔⲀ is here the object of ⲀⲨⲞⲨⲆⲀⲚⲀⲤⲰ. Note that the implicit antecedent of the RC is plural, as signified by the pluractional marker -Ⲇ on both the embedded verb ⲀⲨⲞⲨⲆⲞⲨⲔⲀ and the main verb ⲀⲨⲞⲨⲆⲀⲚⲀⲤⲰ.

38

ⲈⲒϨⲒ ⲞⲨⲚ ⲈⲒⲀⲢⲒ ⲆⲞⲖⲖⲒⲤⲖⲔⲀ ⲞⲨⲔⲔⲀ ⲈⲒⲀⲢⲖ̄ⲄⲀⲤⲤⲈⳟ̄

eihi [Ø [*rel* *ou-n*   *eiar-i*   *doll-is*]]-*il-ka*   *ouk-ka*
lo   2SG-GEN know-PRED? want-PT2-DET-ACC 2SG-ACC

eair-il-gas-se-sin
know-DET-CAUS-PT2.1SG.PRED-EMP

"Lo, I have informed you about what you wanted to know."

Observe that in ex. 38 we find two instances of a determiner that are relatively rare, the first preceding the accusative case in ⲆⲞⲖⲖⲒⲤⲖⲔⲀ (cf. ex. 25, 31 ⲆⲰⲞⲔ[ⲔⲀ] and ex. 32 ⲈⲒⲦⲀⲔⲖⲔⲀ) and the second directly following the verbal root in ⲈⲒⲀⲢⲖ̄ⲄⲀⲤⲤⲈⳟ̄ (cf. ex. 8 ⲔⲞⲚⲖⲞⲖⲄⲞⲨⲖⲖⲞⲚ). As for the curious form ⲈⲒⲀⲢⲒ, with either a phonologically reduced predicative suffix or a juncture vowel, cf. ex. 21 ⲈⲒⲀⲢⲒ.

39

ⲠⲀⲠⲠⲀⲆⲆⲀ ⲄⲀⲖⲆⲀ· ⲈⲒⲆ̄ⳝⲔⲀ· ⲈⲒⲦⲈⲢⲈⳟ̄ Ⲇ̄ⲠⲠⲒⲖⲀ·

[Ø [*rel* *pappajja ŋal-da*   *eid-is*]]-*ka*   *eit-ere-sin*
      Pappajja son-COM send-PT2-ACC take-PRS.1SG.PRED-EMP

dippi-la
village-DAT

"I take what was sent with the son (of) Pappajja to the village"

Ruffini's translation is different here, analyzing ⲈⲒⲆ̄ⳝⲔⲀ as a serial verb consisting of ⲈⲒⲦ- "to take" and ⳝ̄- "to take, bring" with the accusative case, rendering it with "receipt." However, it seems to me that an analysis as a free RC, just like ex. 38, is more likely. I also take ⲈⲒⲆ- to be a rare instance of the verb ⲈⲒⲆ- "to send?," but obviously "to take" remains a valid option as well.

4.2.1 Complement clauses with verbs of reporting and desiring
Object clauses are a subcategory of complement clauses which may appear with verbs of reporting and desiring such as "believe," "say," "wish," "think," "write," and so on. Grammatically speaking, Old

Nubian complement clauses do not differ from regular object claus-
es, or non-coreferential ʀᴄs in general. The subject of the comple-
ment clause, if overtly expressed, will appear in the genitive case,
and the entire clause will be marked by the accusative case. As with
regular non-coreferential attributive ʀᴄs, there is a complementary
distribution between overt subject and the presence of agreement
morphology.

ⲡⲓ]ⲥⲧⲉⲩ[ⲉⲓ]ⲥⲁⲛⲁ ⲉⲛ̅ ⲁ⳽ⲕ ⲉⲓⲧⲣⲉⲥⲕⲁ   **40**

pisteu-eis-ana [*comp* *ein*   *ai-k*   *eitr-es*]*-ka*   L. 107.11–12
believe-ᴘᴛ2-3ᴘʟ   2ꜱɢ.ɢᴇɴ 1ꜱɢ-ᴀᴄᴄ send.ᴛʀ-ᴘᴛ2-ᴀᴄᴄ   ᴏɴɢ §4.7.1.2a
"They believed that you sent me"

Here we find a complement clause dependent on the verb
ⲡⲓ]ⲥⲧⲉⲩ[ⲉⲓ]ⲥⲁⲛⲁ, with a genitive subject and an embedded verb solely
marked for tense. There is no overt agreement marking because the
subject is explicit. The object clause ⲉⲛ̅ ⲁ⳽ⲕ ⲉⲓⲧⲣⲉⲥⲕⲁ is marked with
the accusative case as an object of the main verb ⲡⲓ]ⲥⲧⲉⲩ[ⲉⲓ]ⲥⲁⲛⲁ. Cf.
also L. 107.4–5 ⲕⲟⲥⲙⲟⲥⲓⲁ ⲁ[ⲕⲕⲟⲛ]ⲛⲟⲁ̅ ⲉⲓⲛ ⲁ⳽ⲕ ⲉⲓⲧⲣⲉⲕⲁ (*sic*) "So that the
world knows that you sent me."

ⲇⲟⲗⲗⲏ̅ⲙⲟ ⲟⲩⲕⲁ ⲉⲓⲁⲣ̅ⲅ̅ⲅⲁⲇⲟ̅ⲁⲇⲉⲛⲕⲁ   **41**

doll-immo [*comp* *ou-ka*   St. 6.12–7.2
wish-ᴀꜰꜰ.1/2ᴘʟ   1ᴘʟ.ᴇxᴄʟ-ᴀᴄᴄ   ᴏɴɢ §4.7.1.2b
eiar-il-gad-j-ad-en]*-ka*
know-ᴅᴇᴛ-ᴄᴀᴜꜱ-ᴘʟᴀᴄᴛ-ꜰᴜᴛ-ᴘʀꜱ.2/3ꜱɢ-ᴀᴄᴄ
"We wish that you will inform (lit. cause to know) us"

In this example we find explicit person marking on the embedded
verb owing to the absence of explicit subject. The object clause ⲟⲩⲕⲁ
ⲉⲓⲁⲣ̅ⲅ̅ⲅⲁⲇⲟ̅ⲁⲇⲉⲛⲕⲁ is marked with the accusative case as the object of
the main verb ⲇⲟⲗⲗⲏ̅ⲙⲟ.

If there is an explicit subject in the complement clause, it is
marked by the accusative case.

(42) *P. QI 4 91.r.6–7*   **42**

ⲁⲓⲟⲛ· ⲉ̅ⲕ̅ⲕⲁ ⲧⲁⲣⲓⲟⲕⲟⲛ ⲥⲓⲡⲓⲧⲟⲣ ⲁⲛⲛⲉⲓⲕⲁ ⲧⲣ̅ⲙⲉⲛⲕⲁ ⲉ̅ⲁ̅ⲇⲟ ⲟⲩⲛⲛⲓⲣⲁⲙⲁ   P. QI 4 91.r.6–7
ai-on [*comp* *eik-ka*   *tar-io-kon* *sipitor*   *ann-eika*
1ꜱɢ-ᴄ   2ꜱɢ-ᴀᴄᴄ 3ꜱɢ-ʟᴏᴄ-ᴄ   foundation 1ꜱɢ.ɢᴇɴ-ᴀᴄᴄ
tir-men]*-ka*   *eid-do*   *ounn-ir-a-ma*
give.2/3-ɴᴇɢ-ᴀᴄᴄ   2ꜱɢ-from love-ᴘʀꜱ-ᴘʀᴇᴅ-ᴄᴏᴘ
"And I want from you to not give from it to you and to my founda-
tion."

The subject of the complement clause ⲉⲕ̄ⲕⲁ is here marked by the accusative.[43] Ruffini translates slightly differently here, choosing to render ⲉⲗ̄ⲗⲟ as "for you." This example shows several curious features, such as the absence of tense and agreement morphology in the verb of the complement clause ⲧⲣ̄ⲙⲉⲛⲕⲁ.[44] Observe also the so-called copulative suffix -ⲙⲁ on the main verb,[45] with the element -ⲙ that otherwise appears in emphatic environments such as the affirmative and vetitive. Finally, note the inverse order of possessed and possessor in ⲥⲓⲡ̄ⲧⲟⲣ ⲁⲛⲛⲉⲓⲕⲁ, with the genitive ⲁⲛⲛ- following ⲥⲓⲡ̄ⲧⲟⲣ.

<table>
<tr><td>43</td><td colspan="6">ⲅⲁⲓⲥⲛ̄ ⲕⲁ ⲅ ⲉⲕ̄ⲕⲁ· ⲉⲕ̄ⲕⲁ ⲡ[ⲉ]ⳝⲁ ⲧⲣ̄ⲣⲁ·</td></tr>
<tr><td>SC 22.5–7</td><td>ŋai-sin</td><td>[_{comp} kau</td><td>eik]-ka</td><td>eik-ka</td><td>pes-a</td><td>tir-r-a</td></tr>
<tr><td></td><td>who-EMP</td><td>naked</td><td>be-ACC</td><td>2SG-ACC</td><td>say-PRED</td><td>give.2/3-PRS-PRED</td></tr>
</table>

"Who told you that you were naked?" (*Gen.* 3:11)

In ex. 43 we find a double object construction, with indirect object ⲉⲕ̄ⲕⲁ and complement clause ⲕⲁ ⲅ ⲉⲕ̄ⲕⲁ. The double object construction is supported by the applicative verb ⲧⲣ̄-, usually translated with "to give."

For comparison, observe the following two examples from Nobiin, respectively with an intransitive and transitive verb in the complement clause, which feature a similar construction with genitive-marked subject and accusative marker on the complement clause:

<table>
<tr><td>44</td><td>[_{comp} tar-iin</td><td>kir-ee]</td><td>ka</td><td>dolli-ri</td></tr>
<tr><td>CF 365
Nobiin</td><td>3SG-GEN</td><td>come-COMP1</td><td>ACC</td><td>wish/love-PRS.1SG</td></tr>
</table>

"I wish him to come"

<table>
<tr><td>45</td><td>[_{comp} tar-iin</td><td>kaba-ka</td><td>kab-ee]</td><td>ka</td><td>firgi-ri</td></tr>
<tr><td>CF 378
Nobiin</td><td>3SG-GEN</td><td>food-ACC</td><td>eat-COMP1</td><td>ACC</td><td>want-PRS.1SG</td></tr>
</table>

"I want him to eat the food"

4.2.2 Complement clauses with verbs of ability

Other types of complement clauses have been attested in combination with variants of the verb ⲉⲓⲡ- "to be able," which, just as the verbs of reporting in §2.2.1, takes a complement clause marked by the accusative case. The two following examples show such a complement clause construction embedded under ⲉⲓⲡ-.

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43 See also *P. QI* 1 4.3–4 *elon eimme tillika* [...] *tiddekka.*

44 The morphology of negative contexts is still not completely understood for Old Nubian. But cf. Nobiin example *tar fentiga kab-i* "He eats the date," with tense/agreement suffix, and *tar fentiga kam-muun* with a negative portmanteau suffix (Awad, *The Characteristic Features of Non-Kernel Sentences in Nobiin*, §3.1.1.1, table 31). Perhaps the same is the case with ⲧⲣ̄ⲙⲉⲛⲧⲁ.

45 Browne, *Old Nubian Grammar,* §3.10.

ⲥ̄ⲕⲉⲗⲓⲧⲧⲓ̄ⲗⲇⲉⲕⲉⲗⲕⲁ \\ ⲇⲓⲁⲣⲓⲱ ⲧⲁⲕ[ⲕ]ⲁ ⲁⲩⲟⲩⲗⲟ̄ⲥⲕ̄ ⲉⲓⲣⲗ̄ⲅⲓⲗⲗⲉ   **46**

iskel-itt-il-dekel-ka	[Ø [*rel* [*comp* *diar-iō*	*tak-ka*
pray-NMLZ-DET-C-ACC	death-LOC	3SG-ACC
auoul-os]-ik	*eir]]-il-gille*	
save-COMPL-ACC	be.able-DET-DIR	

"…and prayer (ACC) to whom is able to save him (away/completely) from death."   33

The complement clause ⲇⲓⲁⲣⲓⲱ ⲧⲁⲕ[ⲕ]ⲁ ⲁⲩⲟⲩⲗⲟ̄ⲥⲕ̄ is the object of the verb ⲉⲓⲣ- and therefore marked with the accusative -ⲕ̄. The entire free RC ⲇⲓⲁⲣⲓⲱ ⲧⲁⲕ[ⲕ]ⲁ ⲁⲩⲟⲩⲗⲟ̄ⲥⲕ̄ ⲉⲓⲣⲗ̄ⲅⲓⲗⲗⲉ is then marked with a determiner and directive suffix: "to whom is able to save him (away) from death." According to Bechhaus-Gerst, the suffix -ⲟ̄ⲥ in ⲁⲩⲟⲩⲗⲟ̄ⲥ-should be interpreted as a "movement away from a […] deictic center,"[46] which can also carry the meaning of fully completing a certain action, in casu the saving.

ⲡ̄ⲙⲉⲛⲧⲁ· ⲉⲛ̄ ⲇⲟⲩⲅ̄ⲛ ⲙⲁⲫⲁⲛ ⲧⲣⲓⲕⲁ· ⲡⲕ̄ⲕⲓⲅⲁⲣⲟⲗ ⲉ̄ⲛⲕⲉⲧⲁⲗ ⲇⲓⲙⲓ̈ⲛⲛⲁⲅⲁⲣⲓⲕⲁ/   **47**

ir-men-ta	[Ø [*rel* *ein*	*douŋ-in mañan tri-ka*
be.able-NEG-NEG	DEM.PROX	blind-GEN eye.PL-ACC
pikk-igar-o]]-l	[*comp* *ein-ketal*	*di-minn-a-gar]-ika*
awaken-CAUS-PT1.DET	DEM.PROX-also	die-NEG-PRED-CAUS-ACC

"Is the one who opened the eyes of this blind man not also able to raise this one from the dead?" (*Jn* 11:37)

The main verb ⲡ̄ⲙⲉⲛⲧⲁ here shows the compounding of the two negative suffixes -ⲙⲉⲛ and -ⲧⲁ, which is only attested with the verb ⲡ̄- "to be able" and ⲇⲁⲓ- "to die."[47] Again note the absence of person morphology in the negative verb, as observed in ex. 42 ⲧⲣ̄ⲙⲉⲛⲕⲁ. Assuming, with Browne, that we are dealing here with the introduction to a question "Is (he) not able to…?," the clause ⲉ̄ⲛⲕⲉⲧⲁⲗ ⲇⲓⲙⲓ̈ⲛⲛⲁⲅⲁⲣⲓⲕⲁ is a complement to ⲡ̄ⲙⲉⲛⲧⲁ, marked by the accusative case -ⲕⲁ. The subject of ⲡ̄ⲙⲉⲛⲧⲁ is formed by the subject clause ⲉⲛ̄ ⲇⲟⲩⲅ̄ⲛ […] ⲡⲕ̄ⲕⲓⲅⲁⲣⲟⲗ "the one who opened the eyes of this blind man." ⲉⲛ̄ should not be interpreted as a relative pronoun, as these never appear in free RCs.

    Again we find a similar construction in Nobiin:

[*comp* *ay*	*sirig-ka*	*kay-inan]-ga*	*esk-ir-i*
1SG	boat-ACC	make-INF-ACC	be.able-PRS-1SG

"I am able to make a boat"

46 BECHHAUS-GERST, *The (Hi)story of Nobiin,* 156. The directionality of the perfective suffix is contested by JAKOBI & EL-GUZUULI, "Semantic Change and Heterosemy of Dongolawi *ed,*" pp. 128–9.
47 BROWNE, *Old Nubian Grammar,* §3.9.20. See also BROWNE, *Old Nubian Dictionary,* p. 163, and SMAGINA, "Einige Probleme der Morphologie des Altnubischen," p. 395.

4.3 Other free relative clauses

Except for subject and object positions, free RCs may also appear in other positions in the sentence.

<div style="margin-left:2em">

49   ογελ τῆλ αλλιλογϊακα ϯαλλᾱγογλδαλ ϯαληмεнεn τᾱλογ τακκα αγολκα ᾱειραλο·

ouel tir-l   [∅ [_{rel} *allilouia-ka*   *psall*]]-*il-gou-l-dal*

anyone-DET   Alleluia-ACC sing.psalms-DET-PL-DET-COM

psal-ēmen-en

sing.psalms-NEG-PRS.2/3SG

[*till-ou* [_{rel} *tak-ka*   *au-o*]]-*l-ka*   *aeir-a-lo*

   God-J   3SG-ACC   make-PT1-DET-ACC   insult-PRED-FOC

"If anyone does not sing with those who sing Alleluia, he insults the God who made him"

</div>

The free RC here is αλλιλογϊακα ϯαλλᾱγογλδαλ[48] "with those who sing Alleluia," with the antecedent "those" implied.

<div style="margin-left:2em">

50   ΓενῆτΚα· οnκελ· αππα· τᾱλῆ· ογnτᾱδαλ· πελῆ· ογῆρασῆ· εῆnασῆ·

[∅ [_{rel} *genkit-ka*   *on-ke*]]-*l*   *appa*

     goodness.NMLZ-ACC love-CONSUET-DET for

[∅ [_{rel} *till-in*   *ount-il-dal*   *pel*]]-*in*   *ouer-a-sin*

     God-GEN love-DET-COM   be-GEN   one-PRED-EMP

enn-a-sin

be-PRED-EMP

"For who loves goodness is one of those who are with the love of God"

</div>

This example contains two free RCs, the first ΓενῆτΚα· οnκελ as subject of the sentence and the second τᾱλῆ· ογnτᾱδαλ· πελῆ as a genitive belonging to ογῆρασῆ. Satzinger suggests an "unexpected" interpretation of the suffix -ῆ in πελῆ as third person singular morpheme, whereas the fact that the RC precedes its antecedent and the presence of the verb πελ-, which besides "to be" can also mean "to come out," suggest here a genitive case.

We are now able to analyze a complicated sentence such as the complete verse of *Heb.* 6:7, which contains a number of embedded RCS:

<div style="margin-left:2em">

51   ε̄κτογ Γεδιαnnο ᾱ[ρογ τα]λλω ϭωnα σογκκολκα σιριπα ετα το[ρα(?)] δες δεσσογ εχτακκογλκα· εῆ τακ<κ>α τορ[πα]κκᾱγογκα πεειᾱ ōσα τ̄δϭιλδε τᾱλλοϭω[α] ταογῆκα ε̄ταραΓογελο·

</div>

<div style="margin-left:2em; font-size:smaller">

34   K. 29.8–11   HN, p. 208

P. QI 2 18.iv.2–6   RTA 26

P. QI 1 1.7.1.12–15   RTA 40

</div>

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48 Browne writes ϯαλλᾱ ΓογλδαΛ.

[*iskt-ou* [*rel* [*app* *ŋedian-no* [*arou* [*rel* *tad-dō*　*jōn-a*
　earth-J　　　　often-LOC　rain　　3SG-upon strike-PRED
soukk-o]]*-l-ka*　　　　*sirip-a*　　*et-a*　　*tor-a*]
descend-PT1-DET-ACC　drink-PRED take-PRED enter-PRED
[*des*　*dess-ou*　[*rel* *el-takk-ou*]]*-l-ka*
　crop　green-J　　obtain-PASS-PT1-DET-ACC　　　　　　　　35
[Ø [*rel* *ein* [*tak-ka*　*torpak-k*]]]*-il-gou-ka*
　　　REL　3SG-ACC harvest-CONSUET-DET-PL-ACC
peei-a　　　　*os-a*　　　　　*tij-j*]]*-il-de*
produce-PRED come.out-PRED　give.2/3-PLACT-DET-C
till-illo-jōa　　　　*taoue-ka*　*et-ara-goue-lo*
God-LOC-through　blessing-ACC　receive-PT1.PRED-PL.PRED-FOC
"And the earth which, drinking up the rain that often strikes upon
it, produces obtained green crops for those who harvest it, received
blessing(s?) from God" (*Heb.* 6:7)

The subject of the verb at the end of the sentence, ⲉ̄ⲧⲁⲣⲁ- is the entire
clause ⲟ̄ⲕⲧⲟⲩ [...] ⲡⲉⲉⲓⲁ̄ ⲟ̄ⲥⲁ ⲧ̄ⲟ̄ⲇ̄ⲓⲗⲇⲉ "and the earth which produces...."
The RC ending in the verbal complex ⲡⲉⲉⲓⲁ̄ ⲟ̄ⲥⲁ ⲧ̄ⲟ̄ⲇ̄ⲓⲗⲇⲉ- has as its ob-
ject ⲇⲉⲥ ⲇⲉⲥⲥⲟⲩ ⲉⲗⲧⲁⲕⲕⲟⲩⲗⲕⲁ "obtained green crops," with a slightly
curious verb ⲉⲗⲧⲁⲕⲕⲟⲩⲗ-. I have opted here to interpret the mor-
pheme -ⲟⲩ as a variant of the preterite 1 morpheme, both because
it is a coreferential attributive RC (cf. §7 below) and an interpreta-
tion as an agreement suffix would make no sense. The indirect ob-
ject, supported by the applicative verb ⲧ̄ⲟ̄ⲇ-, is the free RC ⲉ̄ⲛ ⲧⲁⲕ<ⲕ>ⲁ
ⲧⲟⲣ[ⲡⲁ]ⲕⲕⲗ̄ⲅⲟⲩⲕⲁ "for those who harvest it." All of this is preceded by
a lengthy apposition ⲅⲉⲇⲓⲁⲛⲛⲟ [...] ⲥⲓⲣⲓⲡⲁ ⲉⲧⲁ ⲧⲟ[ⲣⲁ(?)] "drinking up
the rain that often strikes upon it," which in turn contains a corefer-
ential attributive RC with antecedent ⲁ̄[ⲣⲟⲩ. Note that both ⲥⲟⲩⲕⲕⲟⲗⲕⲁ
and ⲉⲗⲧⲁⲕⲕⲟⲩⲗⲕⲁ retain the determiner before the accusative case.

5　Relative clauses and predicative –ⲁ

As Satzinger points out, in case the antecedent of an RC is marked
with the predicative, both the RC and its antecedent will feature the
predicative suffix. The predicative -ⲁ therefore behaves differently
from genuine case markings such as the accusative -ⲕⲁ and geni-
tive -ⲛⲁ, which only appear at the right edge of the noun phrase.
The precise syntactical structure underlying the assignment of the
predicative case, however, still lacks clarification. What follows will
therefore be a description of the different types of RCs that we have

encountered in the previous sections in the different contexts in which a predicative suffix appears.[49]

5.1 Nominal predicates

The predicative suffix -ⲁ first of all indicates the main verbal or nominal predicate of a sentence. In case the nominal predicate is accompanied by a RC, it is also marked with the predicative.

52 ⲕⲁⲧⲁⲡⲉⲧⲁⲥⲙⲁ ⲟⲩⲟⲩⲕⲁⲗⲟ̣ ⲡⲁⲗⲁ ⲕⲓⲗⲗⲟⲛ \\ ⲅ̄ⲁⲩⲉⲓⲣⲁ ⲅ̄ⲥ̄ⲥ̣[ⲓⲅⲟⲩ]ⲛⲁ ⲅ̄ⲥ̄ⲥⲁⲁ̇ⲗⲟ
L. 111.7–9 ⲟⲕⲧⲁⲕⲛⲁ̄ \\
ONG §4.6a

[∅ [_rel_ *katapetasma   ouou-ka-lo   pal-a   kil*]]-*l-on*
        veil   second-ACC-FOC come.out-PRED come-DET-C
[*ŋaueir-a* [_rel_ *ŋiss-igou-na   ŋiss-a-a-lo*
  tent-PRED   holy-PL-GEN holy-PRED-QUOTE-FOC
ok-tak-n]]-*a*
call-PASS-PRS.2/3SG-PRED
"And that which comes after the second veil is the tabernacle, which is called the Holy of Holies" (*Heb.* 9:3)

The subject of the nominal predicate ⲅ̄ⲁⲩⲉⲓⲣⲁ is a subject clause ⲕⲁⲧⲁⲡⲉⲧⲁⲥⲙⲁ ⲟⲩⲟⲩⲕⲁⲗⲟ̣ ⲡⲁⲗⲁ ⲕⲓⲗⲗⲟⲛ, and it is accompanied by the attributive RC ⲅ̄ⲥ̄ⲥ̣[ⲓⲅⲟⲩ]ⲛⲁ ⲅ̄ⲥ̄ⲥⲁⲁ̇ⲗⲟ ⲟⲕⲧⲁⲕⲛⲁ̄. As we expect, both the nominal predicate and the RC are marked by the predicative suffix.

5.2 Complex verbal predicates

What Browne calls "periphrastic" constructions are in fact not essentially different from the complement clauses we have discussed above in §4.2.1–2, namely a full sentence embedded under a verb. In most instances of such constructions,[50] the main verb is a copula without any overt tense marking, whereas the RC is marked with the predicative, like a regular nominal or verbal predicate. The embedded verb can either appear with or without agreement morphology. I will just give a number of representative examples.

53 ⲧⲁⲣⲟⲛ ⲙⲓⲣⲁ ⲁ̄ⲅⲉⲛⲇⲉ ⲟⲩⲛⲛⲁⲣⲁ ⲙⲉⲛⲛⲁⲗⲱ·
M. 1.8–11 *tar-on   mir-a   ag-ende*
ONG §3.9.14 3SG-C be.barren-PRED remain-NEG
[[*ounn-ar*]-*a*   *men-n*]-*a-lō*
  bear-PT1-PRED NEG-PRS.2/3SG-PRED-FOC
"And she, remaining barren, did not bear"

---

49 I follow here the observations made in "A Note on the Old Nubian Morpheme -ⲁ in Nominal and Verbal Predicates."
50 I include here only what Browne refers to as "predicative" and "indicative" periphrastic constructions (Browne, *Old Nubian Grammar,* §§3.9.14–15).

ⲧⲕⲕⲛ̄ⲛⲟⲛ ⲙ̄ⲟ̅ⲣⲕⲗⲟ ⲡⲁⲇⲁⲛⲁⲥⲱ· ⲙ̄ⲟ̅ⲣⲕⲗ̄ ⲇⲉⲓⲁⲣⲕⲁ ⲅⲉⲅⲣⲁ ⲉ̄ⲛⲉⲛⲛⲉⲇⲟⲩⲛ   **54**

tikkin-non   *imjirk-lo*   *paj-anasō*   K. 24.4–7

nevertheless-c disobedience-LOC cease-IMP.3PL   ONG §3.9.14

imjirk-il   [[*deiar-ka*   *ŋeg-r*]-*a*

disobedience-DET   death-ACC produce-PRS-PRED

en-en]-*nejoun*   37

be-PRS.2/3SG-because

"But nevertheless cease disobedience, because disobedience pro-
duces death"

ⲁⲣⲙⲥ̄ⲧⲁⲕⲕⲁⲉⲓⲟⲛ ⲉⲛ̄ⲇⲛ̄ ⲉⲓⲅⲗ̄ⲇⲉ ⲧⲓⲁ̄ⲫⲗ̄ⲇⲉⲕⲉⲗⲗⲟ·   **55**

[[*armis-tak-k*]-*a-eion*   *ein-d-n*]-*a*   P. QI 1 9.i.22–ii.2

   judge-PASS-PRS-PRED-c   be-FUT-PRS.2/3SG-PRED   ONG §3.9.14

eig-il-de   *tiaf-il-dekel-lo*

fire-DET-c sulphur-DET-c-LOC

"And he will be judged in fire and sulphur" (*Rev.* 14:10)

In this example, the copula ⲉⲛ̄ⲇⲛ̄ contains the modal suffix -ⲇ, giv-
ing the entire verbal complex a future sense. Note also the progres-
sive assimilation of the present (or neutral) tense marker -ⲣ after
-ⲧⲁⲕ in ⲁⲣⲙⲥ̄ⲧⲁⲕⲕⲁⲉⲓⲟⲛ.

    As we have observed above, agreement morphology appears in
the embedded verb at the moment the subject of the embedded verb
is not coreferential with the subject of the copula:

ⲁⲗⲉⲥⲛ̄ ⲟⲩⲛⲛⲣⲉ ⲉ̄ⲛⲉⲛⲛⲟⲛ· ⲭⲣⲓⲥⲧⲓⲁ̄ⲛⲟⲥⲁⲅⲁⲇⲙ̄ⲙⲉ·   **56**

ale-sin   [[*ounn-r-e*]   *en-en*]-*non*   M. 6.8–10

truly-EMP bear-PRS-1SG.PRED be-PRS.2/3SG-c   ONG §3.9.15

khristianos-aŋ-ad-imme

Christian-INCH-FUT-AFF.1SG.PRED

"If I give birth, I will become a Christian"

ⲟ̄ⲟⲩⲣⲓⲕⲁ ⲙⲓⲛⲇⲓ ⲙⲛ̄ⲇⲓⲗⲟ ⲡⲉⲥⲓⲛⲁ ⲇⲟⲩⲙⲙⲉⲛⲉⲥⲥⲛ̄   **57**

[*-jouri-ka*   *mindi mindi-lo*   *pes-in*]-*a*   L. 112.1–2

  -about-ACC individually-LOC say-PRS.2/3SG-PRED   ONG §4.6c

doum-men-ess-in

exist-NEG-PT2-2/3SG

"... about ... it is impossible to speak individually" (*Heb.* 9:5)

Browne analyzes the verb here as *doum-men-es-sin,* with the em-
phatic marker -ⲥⲛ̄. However, the positioning of a verb marked with
this suffix at the end of sentence is unexpected, and with the begin-
ning of the sentence missing no definitive grammatical analysis can
be given.

Complex verbal predicates can of course in turn be embedded, such as in the following example:

58

ⲇⲟⲅⲇⲣⲓⲅⲟⲩⲗ ⲙⲁϣⲁⲗⲟⲥⲕⲗⲟ̄ ⲧⲁⲣⲁ [\\] ⲓ̈ⲉⲣⲟⲩⲥⲁⲗⲙⲓⲟ̄ ⲕⲓⲥⲁⲛⲁ ⲡⲉⲥⲣⲁ̄ⲅⲟⲩ[ⲉ̄] ⲉⲓⲛⲓⲗ

dogd-ri-gou-l   *mašalosk-lo tar-a*   *ierousalm-io*

magus-PL-PL-DET east-LOC   come-PRED Jerusalem-LOC

ki-s-an-a   [$_{rel}$ [*pes-r*]-*a-goue*   *ein*]-*il*

come-PT2-3PL-PRED   say-PRS-PRED-PL-PRED   be-DET

"The magi, coming from the east, arrived in Jerusalem, and said: ..."

The RC ⲡⲉⲥⲣⲁ̄ⲅⲟⲩ[ⲉ̄] ⲉⲓⲛⲓⲗ is attributive to ⲇⲟⲅⲇⲣⲓ̈ⲅⲟⲩⲗ in spite of its distance. And although it is nominalized with the determiner -ⲓⲗ, the internal structure of the clause remains the same: the copula ⲉⲓⲛ- preceded by an RC marked by the predicative suffix, as well as number agreement with its antecedent.

5.3 *Vocative or appellative contexts*

The predicative -ⲁ appears also in vocative or appellative environments, where someone is called or called upon.

59

ⲟⲛⲧⲁⲕⲣⲁⲅⲟⲩⲉ̄ⲕⲉ

[∅ [$_{rel}$ *on-tak-r*]]-*a-goue-ke*

       love-PASS-PRS-PRED-PL.PRED-2PL

"You, beloved"

60

ⲧⲁⲛⲛⲁⲥⲱ ⲁ̄ⲡⲟⲛⲁ ⲧⲁⲣⲟⲩⲁⲥⲥⲁⲅⲟⲩⲉ̄ⲕⲉ

tan-nasō   [∅ [$_{rel}$ *apo-na*

come-IMP.2PL   1SG.POSS.father-GEN

tarou-as-s]]-*a-goue-ke*

bless-TR-PT2-PRED-PL.PRED-2PL

"Come, you, whom my father blessed"

Both examples contain a free RC which is marked by a predicative -ⲁ, with plural predicative suffix -ⲅⲟⲩⲉ̄, and in both cases a special vocative suffix that refers to the second person plural "you," -ⲕⲉ. Otherwise the RC seems to behave grammatically like the ones discussed above, such as marking the subject with a genitive case.

Other examples are grammatically a bit more complex:

ⲅⲟⲕⲕⲟⲣⲁ ⲭⲣⲓⲥⲧⲟⲥⲛ̄ ⲙⲁⲣⲧⲩⲣⲟⲥⲟⲩ ⲅ̄ⲥ̄ⲥⲟⲩ ⲙⲏⲛⲁⲛⲁ ⲁⲩⲥⲁⲗⲱ   61

[ŋokkor-a   [rel khristos-in marturos-ou ŋiss-ou   M. 1.1–3
miracle-PRED   Christ-GEN martyr-J   holy-J   ONG §4.6a
mēna-na   au-s]-a-lō   RTA 21
Mina-GEN   do-PT2-PRED-FOC
"(It is) a miracle performed by Mina, the holy martyr of Christ"   39

We are dealing here with regular non-coreferential attributive RC
in which both the antecedent ⲅⲟⲕⲕⲟⲣⲁ and RC ⲭⲣⲓⲥⲧⲟⲥⲛ̄ […] ⲁⲩⲥⲁ- are
marked with the predicative -ⲁ. The RC shows no agreement mark-
ing, as the subject is overtly expressed, with a genitive suffix. The
example in question is the first sentence of the text known as the
Miracle of St Mina (or Menas) and as such functions as a type of an-
nouncement or caption for the entire story.

This vocative-like usage of the predicative suffix also appears in
other contexts, for example in one of Griffith's graffiti. I give here an
extensive fragment:

ⲡⲉⲧⲣⲟⲥⲓ̈ ⲅⲁⲣⲙⲓ ⲍ̄ⲧⲛ̄ ⲧⲉⲣⲉⲅⲟⲩⲕⲁ ⲕⲟⲫⲟ̄ⲣⲁ· ⲁⲓ ⲉⲓ`ⲁ´ ⲡⲉⲥⲥⲓ ⲅⲁⲡⲉⲅⲟⲩⲕⲁ   62
ⲧⲟⲕⲁⲣⲁ· ⲇⲓⲛⲉⲥⲱ· ⲁⲛⲛⲁ ⲁⲫⲉⲛ ⲟⲩⲕⲟⲩⲣⲣⲱ· ⲁⲓⲕⲁ ⲙⲁⲧⲧⲁⲕⲁ ⲕⲓⲡⲣⲁ ⲅ̄ⲧ̄ⲧⲁⲙⲓⲥⲱ·   gr. 4.1–3
petros-i[rel harm-i   kolotit-in   tere-gou-ka koñ-j-r]-a   RTA 38
Peter-J   heaven-J seventh-GEN key-PL-ACC have-PLACT-PRS-PRED   = ex. 20
[rel [[rel ai   ei-a   pes-s]-i ŋape]-gou-ka tok-ar]-a
           1SG say-PRED say-PT2-J sins-PL-ACC   forgive-PT1-PRED
din-esō   an-na   añ-en   oukour-rō
give.1-IMP.2SG 1SG-GEN life-GEN day-LOC
ai-ka   matta-ka   kipr-a   git-tamisō
1SG-ACC affliction-ACC eat.TR-PRED CAUS-VET.2SG
"Peter, who has the keys of the seventh heaven, who has forgiven
the sins that I have spoken, give, do not cause my affliction to con-
sume me in the days of my life"[51]

Peter, the one who is called upon here by the author of the graffito,
is qualified by two coreferential attributive RCs, both ending in the
predicative suffix -ⲁ. The first coreferential attributive RC shows the
pattern we have seen before, whereas the second one contains an
additional non-coreferential attributive RC ⲁⲓ ⲉⲓ`ⲁ´ ⲡⲉⲥⲥⲓ, with the
antecedent ⲅⲁⲡⲉⲅⲟⲩⲕⲁ (see ex. 20 for discussion). This lengthy ap-
pellation to Peter is then followed by an imperative ⲇⲓⲛⲉⲥⲱ and a ve-
titive ⲕⲓⲡⲣⲁ ⲅ̄ⲧ̄ⲧⲁⲙⲓⲥⲱ.

51 BROWNE, "Griffith's Old Nubian Graffito 4," p. 19, translates "O Peter, you who have the keys
    of the 7 heavens, forgive me for the sins that I uttered. Cause me not to eat tribulation in the
    time of my life," interpreting ⲧⲟⲕⲁⲣⲁ as an imperative and ⲁⲓⲕⲁ as the object of ⲅ̄ⲧ̄ⲧⲁⲙⲓⲥⲱ·
    instead of ⲕⲓⲡⲣⲁ.

5.4 Adjunctive/appositional clauses

Satzinger gives a few other examples in which the predicative -ⲁ appears. These, however, are not proper RCs, i.e. with a fully developed clausal structure including tense and subject and/or agreement morphology, but rather embedded verb phrases without any higher projection, without possible subject, and without ever featuring a relative pronoun. Needless to say, all of them are coreferential.

40

63

St. 17.5–8
RTA 19

ⲡⲁⲡⲁ ⲅⲁⲗⲗⲁ ⲇⲟⲩⲗⲗⲁ· ⲅⲁ ⲡⲁⲡⲗⲁ̄ ⲇⲟⲩⲗⲗⲁ·

pap-a   [$_{app}$*ŋal-la*   *doull*]-*a*   *ŋa* [$_{app}$ *pap-la*   *doull*]-*a*

father-PRED   son-DAT exist-PRED son.PRED father-DAT exist-PRED

"Father being in the son, son being in the father"

64

P. QI 1 10.C.ii.7
RTA 20

ⲟⲩⲣⲟⲩⲁ̄ ⲧⲓ̄ⲕⲁ ⲟⲩⲛⲛⲁ

ourou-a   [$_{app}$ *til-ka*   *ounn*]-*a*

king-PRED   God-ACC love-PRED

"God-loving king"

65

P. QI 2 16.vi.11–vii.2
RTA 22

ⲉ̄ ⲕⲓ̄ⲧⲧⲁ ⲭⲣⲓⲥⲧⲟⲥⲓⲕⲁ ⲟⲩⲛⲛⲁⲅⲟⲩⲉⲕⲉ

e   [$_{app}$*kipt-a*   [*khristos-ka*   *ounn*]]-*a-goue-ke*

oh   people-PRED   Christ-ACC   love-PRED-PL.PRED-2PL

"O Christ-loving people"

5.5 Topicalization of the antecedent

There are a few recorded cases of RCs with an antecedent marked by the predicative suffix that seems to have moved to a more leftward position. In all of these cases we are dealing with a topicalized antecedent, as signaled by the appearance of the "emphatic" suffix -ⲥⲛ̄[52] and the predicative suffix. However, as predicative morphology is not always present in the RC itself (as in exx. 52–62), it may be the case that this assignment only takes place after movement of the antecedent. In all examples below, the movement is not visible on the surface. The intuition that leftward movement is involved derives from 1) the fact that -ⲥⲛ̄ does not always appear in these contexts and that its presence must be linked to a specific syntactic position in the sentence, and 2) the abundant presence of -ⲥⲛ̄ in contexts of quantifier raising, which in other languages explicitly features leftward movement (see §5.6). This type of ⲥⲛ̄-topicalization is allowed from both coreferential and non-coreferential attributive clauses.

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52   There is no room here for a full discussion of the -ⲥⲓⲛ morpheme, which has been analyzed by Satzinger, "Relativsatz und Thematisierung im Altnubischen," pp. 195ff; Browne, *Old Nubian Grammar,* §3.10; Browne, *Old Nubian Dictionary: Appendices,* pp. 28–37, esp. p. 31 "Predicative + -ⲥⲛ̄ as Antecedent"; and Bechhaus-Gerst, *The (Hi)story of Nobiin,* pp. 103–4.

ⲥⲧⲁⲩⲧⲟⲥⲁ̄ ⲁⲇϥⲓⲕⲉⲣⲁⲗⲟ· ⲧⲓ̄ⲗⲗⲁⲥⲛ̄ ⲅⲁⲇⲗⲟ ⲧⲁⲇⲇⲱ ⲟⲗⲗⲟⲗⲗⲟⲇⲱ̄ⲁ·   **66**

stauros-il   adñike-r-a-lo   till-a-sin~i~   St. 27.7–10
cross-DET   life.giving-PRS-PRED-FOC God-PRED-EMP   ONG §4.6a
                                                                    RTA 49
[t~i~ [~rel~ *gad-lo   tad-dō   oll-o*]-*l-lojō-a*
      flesh-LOC 3SG-upon hang-PT1-DET-because-PRED
"The cross is life-giving, because of God who hung upon it in the   41
flesh"

In this example, ⲧⲓ̄ⲗⲗⲁⲥⲛ̄ has apparently moved to the left, and has
been marked by the emphatic suffix -ⲥⲛ̄. Note that the RC ⲅⲁⲇⲗⲟ
ⲧⲁⲇⲇⲱ ⲟⲗⲗⲟⲗⲗⲟⲇⲱ̄ⲁ is marked with the predicative -ⲁ.

ⲅⲟⲇⲁ ⲧⲓ̄ⲗⲗⲁ ⲟⲩⲛⲁ· ⲟⲩⲛ ⲁ̄ⲉⲓ̄ⲗⲅⲟⲩⲛⲁ̄ⲉⲓⲟⲛ ⲉ̄ⲥⲟⲅⲅⲓ̄ⲇⲉⲣⲁ· ⲁⲓ̈ⲁ̄ⲅⲟⲩⲉ̄ⲥⲛ̄ ⲅⲁⲡⲉⲗⲟ   **67**
ⲧⲟⲩⲕⲙⲁ ⲕⲟⲣⲕⲁ ⲉ̄ⲧⲟⲗⲅⲟⲩⲛⲁ̄ⲉⲓⲟⲛ ⲓ̈ⲁ̄ⲧⲟⲣⲟ̄ⲥⲁ·   St. 4.7–5.1
                                                    RTA 50
ŋod-a   till-a   ou-na
Lord-PRED God-PRED   1PL.EXCL-GEN

ou-n   aeil-gou-na-eion   esoggi-der-a
1PL.EXCL-GEN heart-PL-GEN-C   release-NMLZ-PRED

ai-a-goue-sin~i~   ŋape-lo   toukm-a
heart-PRED-PL.PRED-EMP sin-LOC   stink-PRED

[t~i~ [~rel~ *kor-ka   et-o*]-*l-gou-na-eion   iatoros-a*
      wound-ACC receive-PT1-DET-PL-GEN-C doctor-PRED
"God, our Lord, and deliverance of our hearts, and doctor of wound-
ed hearts, stinking in sin"

This series of appeals to God contains one RC ⲕⲟⲣⲕⲁ ⲉ̄ⲧⲟⲗⲅⲟⲩⲛⲁ̄ⲉⲓⲟⲛ,
with the antecedent ⲁⲓ̈ⲁ̄ⲅⲟⲩⲉ̄ⲥⲛ̄, which clearly has moved out of geni-
tive construction into a higher position in the phrase, where it has
been marked with the emphatic marker -ⲥⲛ̄, and the predicative
marker -ⲁ. More clear than ex. 66, this example is perhaps evidence
of ⲥⲛ̄-topicalization as both the predicative -ⲁ and -ⲥⲛ̄ are assigned in
the target position, whereas the RC is not marked by the predicative,
but rather with the genitive, as attributive to ⲓ̈ⲁ̄ⲧⲟⲣⲟ̄ⲥⲁ.

ⲭⲣⲓⲥⲧⲓⲁ̄ⲛⲟⲥⲓⲅⲟⲩⲛ ⲉⲓⲗⲏⲩⲅⲟⲩⲗ ⲡⲉⲥⲣⲁⲛ ⲟⲩⲗⲅⲣⲁ· ⲧⲱ̄ⲉ̄ⲕⲁⲅⲟⲩⲉ̄ⲥⲛ̄ ⲅ̄ⲥⲥⲟⲩ   **68**
ⲙⲏⲛⲁⲛⲁ ⲙⲁⲣⲉⲱ̄ⲧ̄ⲛ ⲕ̄ⲥⲥⲉⲗⲁ ⲁⲩⲇ̄ⲗⲅⲟⲩⲕⲁ·   M. 2.14–17
                                                    RTA 51
kristianos-igou-n   eilēu-gou-l   pes-ran   oulgr-a
Christian-PL-GEN woman.PL-PL-DET talk-PRS.3PL hear-PRED

tōek-a-goue-sin~i~   [t~i~ [~rel~ ŋiss-ou mēna-na
miracle-PRED-PL.PRED-EMP   holy-J Mina-GEN

mareōt-in   kisse-la   au-j]]-*il-gou-ka*
Mareotis-GEN church-DAT do-PLACT-DET-PL-ACC
"Hearing the women of the Christians talk about the miracles that
Saint Mina performed in the church of Mareotis"

This is another example in which the antecedent ⲧⲱⲉ̄ⲕⲁⲅⲟⲩⲉ̄ⲥ̄ⲛ̄ has moved leftward and become marked with the predicative and emphatic markers. Again the RC is not marked with the predicative -ⲁ, but with the accusative.

42	69
P. QI 1 10.A.i.12–15	
RTA 66	

ⲉⲓⲅⲁⲣⲓⲅⲣⲁ̄ⲗⲟ ⲟⲩⲉⲗⲉⲛⲇⲉ ⲁⲡⲟ̄ⲓⲕⲁ ⲉⲓⲣⲓⲙⲉⲛⲧⲁⲗⲟ· ⲅ̄ⲥ̄ⲥⲉⲅⲟⲩⲉ̄ⲥ̄ⲛ̄ ⲁⲅⲅⲉⲗⲟⲥⲛⲁ̄
ⲁⲩⲗⲟⲥⲓⲟ̄ⲓⲥⲓⲛⲛⲁ ⲁ̄ⲡ̄ⲧⲓⲕⲁ·

eigarigra-lo ouel-ende [_{comp} *dir-j*]-*ika*   *eir-imen-ta-lo*
thus-FOC one-NEG   count-PLACT-ACC be.able-NEG-NEG-FOC

*ŋisse-goue-sin*_i   [t_i [_{rel} *aggelos-na*
holy.PRED-PL.PRED-EMP   angel-GEN

aul-os-ij-is-in]]-*na*   *dirti-ka*
save-COMPL-PLACT-PT2-2/3SG?-GEN number-ACC

"So no one is able to count the number of holy ones whom the angel saved"

This final example first shows a complement clause ⲁⲡⲟ̄ⲓⲕⲁ dependent on the verb of ability ⲉⲓⲣⲓⲙⲉⲛⲧⲁⲗⲟ (see §4.2.2), followed by the antecedent ⲅ̄ⲥ̄ⲥⲉⲅⲟⲩⲉ̄ⲥ̄ⲛ̄ of the RC ⲁⲅⲅⲉⲗⲟⲥⲛⲁ̄ ⲁⲩⲗⲟⲥⲓⲟ̄ⲓⲥⲓⲛⲛⲁ. As in ex. 67, the antecedent has moved out of a possessor phrase, here dependent on the object of ⲁⲡⲟ̄ⲓⲕⲁ, ⲁ̄ⲡ̄ⲧⲓⲕⲁ·. Note that the analysis of -ⲓⲛ in ⲁⲩⲗⲟⲥⲓⲟ̄ⲓⲥⲓⲛⲛⲁ is uncertain. Because the subject of the RC ⲁⲅⲅⲉⲗⲟⲥⲛⲁ̄ is explicit, we normally do not expect to find agreement morphology. The only other option is that we are dealing here with an assimilated form of the determiner -ⲓⲗ, which, however, never seems to appear before the genitive case.

5.6 Relative clauses within the scope of quantifiers

A special instance of attributive RCs marked with the predicative suffix are those whose antecedents are the quantifiers ⲙⲟ̄ⲩ̄ϣⲁⲛ "all" and ⲟⲩⲉⲗ ⲧ̄ⲣ- "any" which mark constituents within their scope with the predicative -ⲁ. Apart from featuring this additional marker, the RCs have also moved into the scope of the quantifier and are therefore structurally similar to coreferential RCs with a restricted reading as discussed in §3.1.1.[53]

70	
M. 2.5–7	
RTA 16	

ⲧⲁⲛ ⲅⲟⲅⲗⲁ ⲇⲟⲩⲁ̄ⲣⲁ ⲙⲟ̄ⲩ̄ϣⲁⲛⲅⲟⲩⲕⲉⲧⲁⲗⲗⲉⲉⲓⲟⲛ ⲙⲉⲓⲣⲁⲅⲟⲩⲉ̄ⲗⲱ ⲉⲓⲥⲥⲁⲛⲁ

[[_{rel} *tan*   *ŋog-la*   *dou-ar*]-*a*   *miššan*]-*gou-ketalle-eion*
     3SG.GEN house-DAT live-PT1-PRED all-PL-also-C

meir-a-goue-lō   *eis-s-ana*
be.barren.PRS-PRED-PL.PRED-FOC be-PT2-3PL.PRED

"And also all who lived in her house were barren"

---

53 Leftward movement of the RC has not been indicated in the examples below.

This example features a coreferential attributive ʀᴄ embedded under the antecedent ᴍⲟⲡϣⲁⲛ- and therefore marked with the predicative. Although Satzinger follows Browne in claiming that because of this predicative marker before ᴍⲟⲡϣⲁⲛ- "es steht Prädikativ statt Verbid, und Indikativ statt Subjunktiv,"[54] such a statement is meaningless in a descriptive context in which we attend to Old Nubian morphology, under the assumption that it is more an agglutinative rather than a synthetic language.[55] Note also the complex verbal predicate with copula and predicative-marked ᴍⲉⲓⲣⲁⲅⲟⲩⲉ̄- (cf. §5.2).

ⲉⲛ̄ ⲧⲁⲕⲕⲁ ⲧⲓⲇⲇⲓⲥⲛ̄ⲁ̄ ⲙ[ⲟ̄ⲡ]ϣⲁⲛⲕⲁ ⲁⲫⲟⲓ ⲉⲗⲗⲉⲛ ⲕⲉ̣ⲧⲁⲗⲗⲉⲛⲕⲁ \[\] ⲧⲉⲕⲕⲁ [ⲧⲓ] ⲟ̄ⲇ̄[ⲓⲕⲟⲛⲛⲟ]ⲁ̄

[[_rel_ ein	tak-ka	tij-j-is-n]-a		miššan]-ka
	2SG.GEN 3SG-ACC	give.2/3-PLACT-PT2-2/3SG-PRED		all-ACC

añj-i ellen ketallen-ka tek-ka   tij-j-ikonnoa
life-J eternal-ACC   3PL-ACC give.2/3-PLACT-FIN.2/3SG
"So that all that you have given him you give them eternal life"
(*Jn.* 17:2)

71
L. 106.14–16
RTA 17

The grammatical analysis of this sentence, with no less than four accusative marked constituents, does not appear straightforward, and it is helpful to look at the Textus Receptus from *Jn.* 17:2, which Browne identifies as the verse that is translated here. In Greek we read ἵνα πᾶν ὃ δέδωκας αὐτῷ δώσῃ αὐτοῖς ζωὴν αἰώνιον, and at first sight it seems that the Old Nubian follows the Greek original rather faithfully, perhaps to the detriment of its own grammatical coherence. The purposive construction ἵνα […] δώσῃ "in order to, so that you give" is translated in Old Nubian by the (emended) final verb form [ⲧⲓ]ⲟ̄ⲇ̄[ⲓⲕⲟⲛⲛⲟ]ⲁ̄, whose indirect object αὐτοῖς is rendered with the accusative ⲧⲉⲕⲕⲁ and direct object ζωὴν αἰώνιον with ⲁⲫⲟⲓ ⲉⲗⲗⲉⲛ ⲕⲉⲧⲁⲗⲗⲉⲛⲕⲁ. The translation of the Greek phrase πᾶν ὃ δέδωκας αὐτῷ, with πᾶν "everything, all" in the accusative case and rendered in Old Nubian ⲉⲛ̄ ⲧⲁⲕⲕⲁ ⲧⲓⲇⲇⲓⲥⲛ̄ⲁ̄ ⲙ[ⲟ̄]ϣⲁⲛⲕⲁ, is somewhat less intuitive. Note both the genitive subject ⲉⲛ̄ and agreement marking on ⲧⲓⲇⲇⲓⲥⲛ̄ⲁ̄ are explicit, to avoid any ambiguity. The King James Bible translation of the Textus Receptus gives the rather fluent "that he should give eternal life to as many as thou hast given him," whereas Browne translates the Old Nubian with "in order that, as for all you have given him, he may give eternal life to them," with an inexplicable "as for." Yet in both translations, ⲉⲛ̄ ⲧⲁⲕⲕⲁ ⲧⲓⲇⲇⲓⲥⲛ̄ⲁ̄ ⲙ[ⲟ̄]ϣⲁⲛⲕⲁ and πᾶν ὃ δέδωκας αὐτῷ δώσῃ are appositions to ⲧⲉⲕⲕⲁ and αὐτοῖς

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54 Sᴀᴛᴢɪɴɢᴇʀ, "Relativsatz und Thematisierung im Altnubischen," p. 189
55 Vᴀɴ Gᴇʀᴠᴇɴ Oᴇɪ, "Remarks toward a Revised Grammar of Old Nubian," pp. 174–80.

respectively. Also note that the plural object marker -ⲟ̄ⲟ̄ in ⲧⲓⲟⲟ̄ⲓⲥⲛⲁ̄ refers to the antecedent ⲙ[ⲩ̄]ϣⲁⲛ-.

5.7 Quantifier raising

Satzinger points out that it is "remarkable" that the construction with -ⲥⲛ̄ as discussed in §5.3 often appears in the context of the quantifiers ⲙⲩ̄ϣⲁⲛ "all" and ⲟ̄ⲙⲙⲗ̄ "everyone." This fact, however, seems to support our initial intuition that a constituent marked by predicative and -ⲥⲛ̄ has moved out of its original position to a higher position (cf. §5.4). This type of movement in the scope of quantifiers in commonly referred to as "quantifier raising," a result of the interaction between semantics and syntax levels of representation. I repeat here the examples given by Satzinger, which are otherwise grammatically akin to the examples adduced in the previous sections.

72

K. 22.4–9
RTA 53

ⲉⲓⲧⲁ ⲙⲩ̄ϣⲁⲛⲁⲥⲓⲛ ⲧⲗ̄ⲗ̄ ⲧⲁⲅⲥⲗ̄ⲇⲟ ⲁⲩⲟⲩⲗⲅⲟⲩⲗ ⲁⲓ̈ⲟⲩⲗⲉⲛ· ⲧⲗ̄ⲗⲟ̄ⲣⲟ ⲟⲩⲉⲗⲕⲁ ⲉⲗⲙⲉⲛⲇⲛ̄ⲛⲁⲗⲟ·

[eit-a   miššan]-a-sin$_i$ [t$_i$ [$_{rel}$ till-il   taŋs-il-do
  man-PRED all-PRED-EMP   God-DET(*sic!*) name-DET-in
auou]]-l-gou-l   aiouil-en   till-il-oro
do-DET-PL-DET   be.grudging?-PRS.2/3SG God-DET-from
ouel-ka   el-men-d-inna-lo
one-ACC obtain-NEG-FUT-PRS.2/3SG.PRED-FOC
"All men who act in God's name, when grudging(?), will obtain nothing from God"

73

P. QI 1 4.i.12–13
RTA 54

ⲁ̄ⲯⲓⲣⲁ ⲙⲩ̄ϣⲁⲛⲁ{ⲁ̄}ⲥⲛ̄· ⲁⲓ̈ⲁ̄ⲅⲗ̄ⲗⲉ ⲡⲥ̄ⲧⲉⲩⲗⲟⲛ ⲇⲓⲙⲉⲛⲧⲁⲗⲟ ⲉⲗⲗⲉⲛⲅⲟⲩⲗⲟ ⲕⲥ̄ⲕⲗ̄ⲗⲟ·

[añir-a   miššan]-a-sin$_i$ [t$_i$ [$_{rel}$ ai-agille   pisteu]]-l-on
living.being-PRED all-PRED-EMP   1SG-DIR believe-DET-C
di-men-ta-lo   ellen-gou-lo   kiskil-lo
die-NEG-NEG-FOC eternity-PL-LOC until-LOC
"And all living beings who believe in me do not die until eternity" (*Jn.* 11:27)

74

St. 3.3–8
RTA 57
ONG §4.6a

ⲟ̄ⲙⲙⲗ̄ⲁ̄ⲅⲟⲩⲉ̄ⲥⲛ̄ ⲧⲉⲛ ⲁ̄ⲉⲗ ⲟⲩⲁⲧⲧⲟⲗⲟ ⲥ̄ⲧⲁⲩⲣⲟⲥⲗⲁⲅⲗ̄ⲗⲉ ⲡⲓⲥⲧⲉⲩⲟⲗⲅⲟⲩⲗⲗⲟⲛ ⲧⲁⲩⲱ̄ⲗⲟ ⲅⲟⲛⲟ̄ⲗ ⲇⲟⲩⲁ̄ⲛ̄ⲛⲁ·

jimmil-a-goue-sin1   [t$_i$ [$_{rel}$ ten   aeil   ouatto-loi
everyone-PRED-PL.PRED   3PL.GEN heart   entire-LOC
stauros-lagille pisteu-o]]-l-gou-ll-on   tauō-lo   ŋonj-il
cross-DIR   believe-PT1-DET-PL-DET-C   under-LOC stand-DET
dou-d-inna
exist-FUT-PRS.2/3SG.PRED
"And everyone who believes in the cross with their entire heart will stand under (it)"

In all three examples we find that the consituent including the quantifier has moved to the first position in the clause, leaving behind the RC. Note that we have observed in §5.5 that in a neutral environment RCs always precede a quantifier. In exx. 72–4, however, we find that they all have moved and have been marked by the predicative marker -ⲁ and the emphatic marker -ⲥⲛ̄.

Whereas exx. 72–4 all showed subjects containing a quantifier, the following examples all feature an object containing a quantifier. In each case the quantifier has moved up to the left edge of the constitutent.

ⲉ̄ ⲁⲛ ⲡⲁ̄ⲧⲁ ⲡⲉⲧⲣⲟ̄ⲥⲓ ⲟⲛ ⲟⲩⲣⲟⲩ ⲁⲛ ⲉⲅⲅⲁⲉⲅⲟⲩⲉ̄ⲕⲉ· ⲟⲩⲗⲗⲟ ⲉⲓⲉ̄ⲣⲁ

ⲅ[ⲉ]ⲉⲓⲁ̄ ⲙⲱ̄ϣⲁⲛⲁⲅⲟⲩⲉ̄ⲥⲛ̄· ϊ̈ⲟⲩⲇⲁⲓⲟ̄ⲥⲣⲓ̈ ⲙⲁⲙⲥ̄{·}ⲕⲁⲉⲓⲅⲟⲩⲛⲁ ⲁ̈ⲓ[ⲁ]ⲅⲗ̄ⲗⲉ

ⲁⲩⲉⲓⲥ̄ⲥⲁⲛⲅⲟⲩⲛⲕⲁ·

e   an   pidt-a   petros-i on
oh 1SG.GEN   friend-PRED Peter-J   C

our-ou an   eŋŋae-goue-ke
2PL-J   1SG.GEN brother.PL.PRED-PL.PRED-2PL

oul-lo   eier-a   [ŋeei-a   miššan]-a-goue-sin$_i$
2PL-FOC know.PRS-PRED thing-PRED all-PRED-PL.PRED-EMP

[t$_i$ [$_{rel}$ *ioudaios-ri mamiskaei-gou-na ai-agille*
        Jew-PL   unjust.PL-PL-GEN 1SG-DIR

au-eij-s-an]]-gou-n-ka
do-PLACT-PT2-3PL-PL-?-ACC

"Oh Peter, my friend, and you, my brothers, you know all the things that the unjust Jews did to me"

Note here the presence of both an overt subject ϊ̈ⲟⲩⲇⲁⲓⲟ̄ⲥⲣⲓ̈ ⲙⲁⲙⲥ̄{·} ⲕⲁⲉⲓⲅⲟⲩⲛⲁ and agreement morphology in the embedded verb ⲁⲩⲉⲓⲥ̄ⲥⲁⲛ- (cf. ex. 69), and also observe the curious presence of the *nu* before the accusative -ⲕⲁ, which unfortunately remains unexplained.

ⲟⲛⲕⲉⲧⲁⲗⲗⲉ ⲁ̄ⲣⲟⲩⲁ̄ⲅⲁⲣⲁⲙⲏ· ⲟ̄ⲙ̄ⲙⲗ̄ⲁ̄ⲅⲟⲩⲉ̄ⲥⲛ̄ ⲧⲁⲛ ⲥ̄ⲧⲁⲩⲣ[ⲟⲥⲗ̄]ⲇⲱ ⲧⲉⲉⲗ̄ⲅⲟⲩⲕⲁ·

on-ketalle   arouagar-a-mē
C-also   protect.CAUS-PRED-IMP.2/3SG

jimmil-a-goue-sin$_i$
everyone-PRED-PL.PRED-EMP

[t$_i$ [$_{rel}$ *tan   istauros-il-dō   teei]]-l-gou-ka*
        3SG.GEN cross-DET-in   hope-DET-PL-ACC

"And also protect everyone who hopes in his cross"

77
SC 7.14–16
RTA 64

ⲕⲟⲗⲁⲧⲕⲏⲙⲁ ⲧⲓ̄ⲗⲗ· ⲉⲓⲧⲁ ⲟⲩⲉⲗ ⲧⲓⲇⲁⲥⲛ̄· ⲟⲩⲉ̂ⲣ̄ⲗⲇⲱ ⲁ̄ⲕⲁ ⲑⲁⲗⲁⲥⲟⲩ ⲟⲩⲁⲧⲧⲟⲕⲁ
ⲅ̄ⲗⲗⲁ ⲛ̄ⲕ̄ⲕ̄ⲕⲁ·

46

kolat-k-imma   *till-il*   [*eit-a*   *ouel tid]-a-sin$_i$*
like-CONSUET-AFF.2/3SG   God-DET   man-PRED   anyone-PRED-EMP
ouer-il-dō   *ak-a*
mountain-DET-upon   sit-PRED
[t$_i$ [$_{rel}$ *thalas-ou ouatto-ka*   *gill-a*   *ŋik-k]]-ik-ka*
      sea-J   entire-ACC   consider-PRED   see-CONSUET?-DET-ACC
"God is like a man, sitting upon a mountain, who is considering the
entire sea"

I would like to emphasize again that in all above examples of ⲥⲛ̄-
topicalization, the topicalized antecedent cannot move out of its
constituent, but only moves to its leftmost position, as in above ex-
ample. This only makes sense under the assumption of head raising
movement, a possible interpretative framework for Old Nubian RCs
that I have referred to earlier. This becomes clear when we contrast
exx. 72–7 with an example in which the constituent that is topical-
ized by -ⲥⲛ̄ is not the antecedent of an attributive RC.

78
P. QI 2 16.i.1-2
RTA 52
ONG §4.6a

ⲱ̄ⲣ<ⲉ>ⲥⲉⲛ ⲥⲁⲗⲁⲥⲓⲛ ⲡⲉⲥⲥⲓⲛⲁⲗⲱ ⲧⲓ̄ⲗⲗⲓⲛⲁ ⲟⲩⲛⲉⲕⲁⲧⲧⲟⲩ ⲛ̄ⲥ̄ⲥⲟⲩ· ⲕⲓⲣⲓⲗⲗⲱⲥⲉⲓ
ⲓ̈ⲉⲣⲟⲩⲥⲁⲗⲓⲙⲓⲛⲁ ⲡⲁⲡⲁⲥⲟⲩ ⲛ̄ⲥ̄ⲥⲉⲛⲱⲕ̄ⲗ̄:

[*ōrese-n*   *sal]-a-sin$_i$*   *pes-s-in-a-lo$_j$*
praise-GEN   speech-PRED-EMP   say-PT2-3SG-PRED-FOC
till-ina ounekatt-ou ŋiss-ou kirillōs-ei ierousalim-ina
God-GEN wise-J   holy-J   Cyril-J   Jerusalem-GEN
papas-ou ŋissenōk-il t$_i$ t$_j$
father-J   holy-DET
"(It is) a speech of praise made by the holy wise man of God, Cyril
holy father of Jerusalem."

Superficially, this example is similar to ex. 61, functioning as a sort
of captioning to the text that follows, in this case a sermon on the
four creatures. There are however, notable differences. First of all, it
features the suffix -ⲥⲓⲛ, which we are by now acquainted with. Fur-
thermore, it seems that the verb has moved out of its original posi-
tion at the end of the clause. Observe also that the verb has person
morphology, while the subject of the clause ⲧⲓ̄ⲗⲗⲓⲛⲁ […] ⲛ̄ⲥ̄ⲥⲉⲛⲱⲕ̄ⲗ̄ is
simply marked with a determiner, as we would expect in a regular
sentence. So it seems that we are not dealing with an extraction of
an antecedent from an RC, as is suggested by Satzinger, but rather
with a different kind of inversion, based on a regular SOV sentence;
the translation with a passive in English therefore only imitates the
word order, but not the morphology. What we are dealing with is

ⲱ̄ⲣ<ⲉ>ⲥⲉⲛ ⲥⲁⲗ- starting out as an object of ⲡⲉⲥⲥⲓⲛⲁ-, within the usual sov order of an Old Nubian sentence, but which is subsequently topicalized with the predicative and -ⲥⲓⲛ, moving to the leftmost position in the sentence. What the head raising analysis of rc predicts, is that this type of long-distance movement would be impossible for antecedents in an rc. This seems to be confirmed by exx. 72–7.

47

6 Extraposition

Old Nubian is an sov language, meaning that modifiers in general precede heads. We have already seen that most attributive rcs, except for certain non-coreferential attributive rcs (§3.3.1), rcs of time, place, and manner (§3.3.2), and rcs in the scope of quantifiers (§5.6), do not follow this pattern. This situation can be accounted for through the head raising analysis of rcs, an analysis that is empirically supported by the existence of anaphors (§3.4), and the constraints on ⲥⲛ̄-topicalization and quantifier raising (§5.7). However, in some cases we find that material is transported to the right edge of the clause, usually in a position following the main verb of the sentence. We speak of extraposition when a constituent is partially or fully moved to the right edge of the main clause, therefore appearing after the main verb in its original position.[56] Extraposition regularly happens in case of "heavy" constituents, such as coordinated noun phrases, as can be noticed from the following examples. Extraposition only seems to appear in the case of non-coreferential rcs.

ⲉⲛ̄ⲙⲟⲛ ⲉⲛ̄ⲛⲁ ⲁⲯⲟ̄ ⲉⲗⲗⲉⲛ ⲕⲉⲧⲁⲗⲗⲉⲛ· ⲉⲓⲣⲟⲩ ⲧ̄ⲗⲗⲟⲩ ⲧⲓⲟ̄ⲛⲓ ⲁⲩⲣⲟⲩⲧ̄ⲕⲁ ⲉⲓⲁ̄ⲣⲓ· ⲟⲛ   79
ⲉⲓⲧ̄ⲥ̄ⲥⲟⲩ ⲓ̈ⲏ̄ⲥⲟⲩⲥⲓ ⲭⲣⲓⲥⲧⲟⲥⲓⲕⲁ   SC 9.11–14
                                                                          ONG §4.6a
ein-mon   ein-na   añj ellen ketallen   = ex. 21
DEM.PROX-C   be-PRS.2/3SG life eternal
[*eir-ou till-ou tijn-i   aurout*]*-ka* t$_i$ *eiar-i*
 2SG-J   God-J true-J alone-ACC   know-PRED?
[*on* [$_{rel}$ *eit-iss*]*-ou*   *iēsous-i khristos*]*-ika$_i$*
 C   send-PT2-J Jesus-J   Christ-ACC
"And this is the eternal life: to know you, the only true God and Jesus Christ whom you sent" (*Jn.* 17:3)

The extraposition of the second part of the coordinated noun phrase that is the object of ⲉⲓⲁ̄ⲣⲓ is straightforward, as it is moved to the right edge of the main clause. The extraposed clause ⲉⲓⲧ̄ⲥ̄ⲥⲟⲩ ⲓ̈ⲏ̄ⲥⲟⲩⲥⲓ ⲭⲣⲓⲥⲧⲟⲥ- itself contains a rc without, however, an explicit subject, as

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56 Verbs marked by -ⲗⲟ or with affirmative or imperative case marking often move to a position higher up in the sentence. See also the commentary to ex. 80.

we would expect. Perhaps the fact that the subject is very obvious (i.e., God), allows for it to remain implicit. The interpretation of the verb ειᄧρι is less straightforward. Browne rightly indicates a parallel, if fragmentary, passage in L. 106.18, where again we find ειᄧρι \\ oɴ ɛ[ı]-. Scribal error therefore seems to be unlikely. The parallel Textus Receptus of *Jn.* 17:3 has the regular active form γινώσκωσιν. Considering the fact that the entire phrase ειρογ [...] χριϲτοϲικᴀ is an apposition to the predicate ᴀφᲫ ελλεɴ κετᴀλλεɴ, the expected morpheme would be a predicative -ᴀ. Perhaps we are dealing here with a weakening of -ᴀ > -ı. This intuition seems to be supported by ex. 38, in which we find ειᄧρι ᴧολλιϲλ̄κᴀ, again with an *iota* instead of an *alpha*.

80	[ɢοᴧⳟ] πεϲᴀᴧᴍ̄ᴍᴀ πᴀᴀρτᴧᴀ κ̄τογτ[ο]γ[ᴧ]ᴧε / οɴˋ ειɴⲏ̄ⲅογɴ

Ჯικεριⲅογᴧᴧεκελⲅογᴧ ᴍᴀɴɴᲯ κᴀει ᴧογλλᴀɴ //

ŋod-il	pes-ad-imma	paar-t-la	[kipt-ougou-l-de on
God-DET	say-FUT-AFF.2/3SG	write-NMLZ-DAT	people-PL-DET-C c

t_i *ein-in]-gou-n* [*šike-ri-gou-l-dekel-gou-l*
  be-PRS.3SG-PL-GEN   ruler-PL-PL-DET-C-PL-DET

[_rel_ *man-nō* kaei *doull-a*]]-n_i
  DEM.DIST-LOC born.PRED? exist-PT1-GEN

"God will say in the writing of the people and the rulers who were born there" (*Ps.* 86:6)

Browne translates this sentence with "The Lord will say in the writing: 'The people and the rulers of these who are born here.'" The issue with this translation is that it fails to account for the genitives on both ᴧογλλᴀɴ and the auxiliary verb ειɴⲏ̄ⲅογɴ depending on πᴀᴀρτᴧᴀ, with the heavy noun phrase Ჯικεριⲅογᴧᴧεκελⲅογᴧ ᴍᴀɴɴᲯ κᴀει ᴧογλλᴀɴ extraposed to the right edge of the sentence. The actual translation is therefore much closer to the Greek of *Ps.* 86:6 ἐν γραφῇ λαῶν καὶ ἀρχόντων... than Browne's rendering suggests. The question however remains why the Old Nubian here uses the auxiliary verb ειɴ-. Perhaps this again has to do with the weight of the noun phrase "of the people and the princes who are born there." Note also that unlike the previous ex. 79, the conjunction oɴˋ is left behind in the first part of the coordinated noun phrase. Note also that the verb πεϲᴀᴧᴍ̄ᴍᴀ has moved leftward, as can be also seen in other examples, such as exx. 32, 41, 77, 87. This leftward verb movement is supposedly related to the presence of the affirmative suffix -ᴍᴀ.[57]

This type of extraposition appears to happen with certain RCs, where the entirety of the attributive RC is extraposed to the right edge of the main clause, that is, after the main verb. There seems to

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57 BROWNE, *Old Nubian Grammar*, §3.9.10.

be a difference between extraposition of RCs that contain an overt subject and those who do not. Whereas the former do not repeat the case marking of their antecedent on the right edge, the latter do. It remains unclear, however, why this difference exists.

6.1 Relative clauses without overt subject/with agreement   49

…]ⲗⲁⲡⲡⲁ ⲁⲕⲇⲁⲕⲧⲁⲕⲁⲣⲁ̣[ⲥⲛ̄] \\ [ⲧⲁⲣⲓ]ⲁ ⲗⲓⲭⲭⲓⲛⲇⲓⲛⲇⲉ \\ ⲧⲣⲁ̄ⲡⲓⲥⲓⲗⲇ[ⲉ]   **81**
[ⲡⲁⲣ]ⲟⲩ ⲟⲩⲥⲕⲟⲩⲣⲧⲛ̄ˋⲣⲟⲩⲗˊⲇⲉⲕⲉⲛⲛⲁ ⲇⲟⲩⲉ̄ⲥⲁⲛ   L. 111.3–6

[*...lappa*$_i$ t$_j$] *akdak-tak-ara-sin*   [$_{rel}$ *tar-ia*$_i$ *likhkhindin-de*
   tabernacle   set.up-PASS-PT1.PRED-EMP   3SG-DAT lampstand-C
trapis-il-de   *parou* *ouskourt-in-gou-l-deken-na*   *dou-esan*]$_j$
altar-DET-C   bread   display-GEN-PL-DET-C-GEN   be-PT2.3PL
"(For) the tabernacle was set up in which the lampstand, altar, and bread displays were"

In this example, the long RC with the incomplete subject …]ⲗⲁⲡⲡⲁ "tabernacle" as its antecedent is extraposed and placed after the main verb ⲁⲕⲇⲁⲕⲧⲁⲕⲁⲣⲁ̣- with an emended emphatic suffix -ⲥⲛ̄. The RC itself includes both a subject in the genitive case and verb with person marking. The noun ⲟⲩⲥⲕⲟⲩⲣⲧⲛ̄ˋⲣⲟⲩⲗˊⲇⲉⲕⲉⲛⲛⲁ contains a double genitive case marking both before and after the conjunctive suffix -ⲇⲉⲕⲉⲛ "and" (with regressive assimilation) with the plural -ⲣⲟⲩⲗ written on top of it, which I have tentatively inserted before -ⲇⲉⲕⲉⲛ, although we cannot be certain whether this is the correct position. In this and other examples in which the extraposed RC contains a verb with person marking, case marking is not repeated.

ⲥⲏ[ⲗ?]ⲉ̄ […] ⲙⲓ ̣[̣]ⲩⲗⲕⲁ ⲁⲩⲟⲩ[ⲥ]ⲁⲛ ⲟⲩⲕⲟⲩⲣ[ⲣ]ⲟ ⲁⲩⲟⲩⲥⲁⲛ ⲧⲁⲣⲉ ⲅⲁⲇⲕ̄ⲕⲟⲗ   **82**
sēle ...   [*mi??ul* t$_i$]-ka [$_{rel}$ *auou-s-an*   *oukour-ro auou-s-an*]$_i$ L. 32.3–4, 33.4–8
everyone   *mi??ul* -ACC   make-PT2-3PL day-LOC   make-PT2-3PL   RTA 33
tare   *gaj-il-ko-l*
bless.PRED rejoice-DET-PERF-DET
"Everyone who has blessed and rejoiced at the *mi??ul* that they made, made in one day"

The entire clause ending in ⲧⲁⲣⲉ ⲅⲁⲇⲕ̄ⲕⲟⲗ is dependent on ⲥⲏ[ⲗ?]ⲉ̄ from the previous page is a case of quantifier raising (§5.7). The verb form ⲧⲁⲣⲉ, from ⲧⲁⲣⲟⲩ-/ⲧⲁⲣⲓ- "to bless, praise" is supposedly marked by the predicative, with the common -ⲓ + ⲁ > ⲉ.[58] The RC ⲁⲩⲟⲩ[ⲥ]ⲁⲛ ⲟⲩⲕⲟⲩⲣ[ⲣ]ⲟ ⲁⲩⲟⲩⲥⲁⲛ, with a repeated verb, is extraposed from the noun phrase ⲙⲓ ̣[̣]ⲩⲗⲕⲁ, and is, as in the previous example, not additionally marked for the accusative case.

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58 Cf. ibid., §3.9.6.1b.

83
St. 16.4–8
RTA 30
ONG §3.9.14, 4.6c

ⲕⲁⲣⲕ ⲁⲩ[ⲗ]ⲉⲛⲁⲣⲁ̄ ⲉⲓⲛⲛ̄ ⲕⲟ[ⲛ]ⲕⲟⲁⲛⲛⲟⲁ̄· ⲟⲛ ⲅⲟⲩⲉ̄ⲁ̄ ⲧⲟⲩⲗⲗⲓ̈ⲥ ⲉⲓⲛⲛ̄·

[kar   t$_i$]-k   [$_{rel}$ aul-en-d-ra   ein-in   t$_j$]$_i$
  shield -ACC   save-?-FUT-PRS.PRED be-PRS.2/3SG
kon-koannoa [$_{rel}$ on goue-a   toull-is   ein-in]$_j$
have-FIN.3PL   c armor-PRED strong-PT2 be-PRS.2/3SG

"So that they may have a shield that will save and has been strong
armor"

50

We see in this example a construction that is essentially similar to
the previous one, save for the clause ⲟⲛ ⲅⲟⲩⲉ̄ⲁ̄ ⲧⲟⲩⲗⲗⲓ̈ⲥ ⲉⲓⲛⲛ̄, which is
extraposed completely to the right edge of the sentence, after the
main verb ⲕⲟ[ⲛ]ⲕⲟⲁⲛⲛⲟⲁ̄ in a construction that is similar to ex 80.
Note that although ⲧⲟⲩⲗⲗⲓ̈ⲥ, with a diairesis on the iota indicating a
new syllable, is indexed as separate hapax adjective,[59] it definitely
looks like the verb ⲧⲟⲩⲗⲗ- with a preterite 2 suffix -ⲓ̈ⲥ. In any case, the
placement of a possible adjective ⲧⲟⲩⲗⲗⲓ̈ⲥ after predicative-marked
ⲅⲟⲩⲉ̄ⲁ̄ would be curious, and something like *gouea toullisa* would
be expected. Perhaps a predicative suffix has been lost here before
ⲉⲓⲛⲛ̄·, cf. ⲁⲩ[ⲗ]ⲉⲛⲁⲣⲁ ⲉⲓⲛⲛ̄, whose suffix -ⲉⲛ I cannot explain. ⲁⲩ[ⲗ]
ⲉⲛⲁⲣⲁ ⲉⲓⲛⲛ̄ and possibly ⲧⲟⲩⲗⲗⲓ̈ⲥ ⲉⲓⲛⲛ̄ are complex verbal predicates
as discussed in §5.2.

6.2 Relative clauses with overt subject/without agreement
In contrast with the examples from §6.1, in case the verb in the ex-
traposed RC is not explicitly marked for person, it carries the same
case marking as its antecedent. Just like regular RCs, these extra-
posed RCs may feature a relative pronoun. As yet it is unclear why
an overt subject and/or the absence of agreement marking triggers
the repetition of the case marking on the extraposed RC. Perhaps we
are in these cases not dealing with extraposition proper as in §6.1,
but rather with a full clause adjoined to the right edge of the main
clause, in which the case marking signals which constituent the RC
is coindexed with.

84
M. 8.15–9.3
HN, p. 208
ONG §4.6b

ⲡⲁⲡⲟ ⲉⲓⲣⲟⲩ ⲉⲛ̄ⲕⲁ ⲁⲛⲕⲓⲙⲛ̄ⲛⲁⲓ̈ ⲉ̄ⲧⲧⲟⲩ ⲟⲩⲉⲛⲛⲁ ⲉⲕⲕⲁ ⲁⲉⲛⲟ̄ⲥⲕⲁ

pap-o   eir-ou ein-ka$_i$ ank-imin-na-i
father-VOC 2SG-J   DEM.PROX-ACC remember-NEG-PRS.2/3SG-Q
[$_{rel}$ eitt-ou   ouen-na   ek-ka   den-j-is]-ka$_i$
  woman-J   one-GEN 1PL.INCL-ACC give.1-PLACT-PT2-ACC
"Father, don't you remember what a woman gave us?"

The extraposed RC ⲉ̄ⲧⲧⲟⲩ ⲟⲩⲉⲛⲛⲁ ⲉⲕⲕⲁ ⲁⲉⲛⲟ̄ⲥⲕⲁ, moved to the right
edge of the verb ⲁⲛⲕⲓⲙⲛ̄ⲛⲁⲓ̈, is marked with the accusative case, just

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59 Browne, *Old Nubian Dictionary*, p. 163.

like its antecedent in the main sentence ⲉⲛ̄ⲕⲁ. The following two examples both show a relative pronoun:

ⲙⲁⲛ ⲕⲟⲩⲙⲡⲟⲩⲕⲁ … ⲅⲁⲗⲉⲛ· ⲏⲛ` ⲧⲁⲛ` ⲟⲩⲥⲕⲣⲁ ⲁ̄ⲅⲟⲣⲉ̄ⲥⲕⲁ   **85**
[*man   koumpou]-ka_i ŋal-en   [_rel_ ēn [tan*   M. 8.7–12
DEM.DIST egg-ACC   see-PRS.2/3SG   REL 3SG.GEN   RTA 42   **51**
ouskr-a   agor-iss]]-ka_i   ONG §4.6b
place.TR-PRED forget-PT2-ACC
"When he saw that egg that he had put away and forgotten"

The extraposed RC ⲏⲛ` ⲧⲁⲛ` ⲟⲩⲥⲕⲣⲁ ⲁ̄ⲅⲟⲣⲉ̄ⲥⲕⲁ, extraposed to the right edge after the main verb ⲅⲁⲗⲉⲛ, is here marked with the same accusative case as its antecedent, ⲙⲁⲛ ⲕⲟⲩⲙⲡⲟⲩⲕⲁ and introduced by a relative pronoun ⲏⲛ. A similar extraposition can be found in the following example:

ⲟⲩⲕⲕⲟⲛⲟ ⲕⲁⲡⲟⲡⲓ ⲁⲩⲣⲟⲩⲧⲕⲁ ⲧⲟⲅ̄ⲧⲁⲛⲁⲥⲱ· ⲉⲛ̄ ⲉⲗⲗⲉ ⲉ̄ⲗⲏ ⲟⲩⲕ ⲟⲩⲥⲕⲣⲁ   **86**
ⲧⲓⲟ̄ⲇⲁⲣⲣⲓⲕⲁ   SC 5.15–17
ouk-k-ono   [kapop-i aurout]-ka_i toŋt-anasō   RTA 44
2PL-ACC-REFL pearl-J self-ACC   make.worthy-IMP.3PL   ONG §4.6b
[_rel_ *ein* [*elle   elē   ou-k*
   REL in.the.future today 2PL-ACC
ouskr-a   tij-j-arr]]-ika_i
place.TR-PRED give.2/3-PLACT-FUT-ACC
"Make yourselves worthy(?) of the pearl itself, that some day I will place before you"

The pattern of this example follows the previous one, with an extraposed RC on the right side of ⲧⲟⲅ̄ⲧⲁⲛⲁⲥⲱ, marked with an accusative case, just like the object of the main verb.

Sometimes the antecedent is extraposed together with the RC:

ⲁⲓ̈ ⲧⲁ ⲡⲓ̄ⲥⲧⲉⲩⲉⲙ̄ⲙⲉ ⲉⲓⲣ ⲉⲛⲉⲛⲕⲁ· ⲭⲣⲓⲥⲧⲟⲥⲓ ⲕⲟⲥⲙⲟⲥⲗⲁ̄ ⲕⲣⲟⲗ·   **87**
ai   ta pisteue-imme   [_comp_ eir   t_i en-en]-ka   P. QI 1 4.i.15–17
1SG CL believe-AFF.1SG   2SG(*sic!*) be-PRS.2/3SG-ACC
[*khristos-i* [_rel_ *kosmos-la kr-o*]]-l_i
Christ-J   world-DAT come-PT1-DET
"I believe that you are the Christ who came to the world" (Jn. 11:27)

In this example, the complement clause ⲉⲓⲣ ⲉⲛⲉⲛⲕⲁ, dependent on the verb ⲡⲓ̄ⲥⲧⲉⲩⲉⲙ̄ⲙⲉ "I believe," is marked as expected with the accusative case -ⲉⲓⲣ ⲉⲛⲉⲛⲕⲁ, although the subject ⲉⲓⲣ appears in the nominative and the embedded verb is marked for person. The nominal predicate ⲭⲣⲓⲥⲧⲟⲥⲓ ⲕⲟⲥⲙⲟⲥⲗⲁ̄ ⲕⲣⲟⲗ, which otherwise contains a well-

behaved attributive RC, is extraposed in its entirety to the right edge of the main clause. According to Browne, the clitic ⲧⲁ should be interpreted as an "intensifying prefix."[60] Its status, however, is uncertain.

Bechhaus-Gerst notes that similar constructions exist in Nobiin, where the antecedent is carried together with the RC to the right edge of the main verb.[61] She gives two examples:

88a
HN, p. 212
Nobiin

gelb-on   [*ideen*   [*rel* *aaw-o*]]-*ka*   *tiiraa*
look.around-PST.3SG   woman   do-PST.PTCP-ACC   to
"and he looked around to the woman who had done this"

88b
HN, p. 212
Nobiin

kuñir-oos-on   [*turba* [*rel* *mulee-l*   *finda-fi-i*]
bury-COMPL-PST.3SG   tomb   hill-in   quarry.out-STAT-PTCP
wee]-*laa*
one-in
"he buries him in a tomb which had been hewn out in the rock"

A final example recapitulates the antecedent in the RC through a personal pronoun, combining extraposition with an anaphor:

84
= ex. 33

ⲉⲇⲇⲣⲱ ⲕⲁⲟ̆ⲕⲁ ⲉ̱ⲛ̄ ⲇⲓⲅ̄ⲗ: ⲉⲗ̄ ⲧⲁⲇⲟⲩ ⲉⲓⲅⲟⲩⲗⲁ̱ [ⲟ]ⲩⲉⲛⲛⲁ ⲧⲁⲇⲇⲱ ⲁⲕⲓⲙⲥ̄ⲥⲓⲕⲁ·
ed-d-rō   *kaj-ka*ᵢ   [*rel* *ein*   [*dig*]]-*el*
find-FUT-PRS.2PL   colt-ACC   REL   bound-DET
[*rel* *eil*   *tad-ou* [*ei-gou-la*   *ouen-na*   *tad-dō*   *ak-imis-s*]]-*ika*ᵢ
     now   3SG-J   man-PL-DAT   one-GEN   3SG-upon   sit-NEG-PT2-ACC
"You will find a colt that is bound, one upon which no one among men has yet sat" (*Mk.* 11:2)

The entire extraposed clause ⲉⲗ̄ ⲧⲁⲇⲟⲩ ⲉⲓⲅⲟⲩⲗⲁ̱ [ⲟ]ⲩⲉⲛⲛⲁ ⲧⲁⲇⲇⲱ ⲁⲕⲓⲙⲥ̄ⲥⲓⲕⲁ is marked with the accusative case, just like the object of ⲉⲇⲇⲣⲱ, ⲕⲁⲟ̆ⲕⲁ. The border between an extraposed RC and an right-adjoined clause is vague here, because grammatically speaking the antecedent of ⲉⲓⲅⲟⲩⲗⲁ̱ [ⲟ]ⲩⲉⲛⲛⲁ ⲧⲁⲇⲇⲱ ⲁⲕⲓⲙⲥ̄ⲥⲓ- is not ⲕⲁⲟ̆ⲕⲁ, but ⲧⲁⲇⲟⲩ. We should however note the other attributive RC in this example, ⲕⲁⲟ̆ⲕⲁ ⲉ̱ⲛ̄ ⲇⲓⲅ̄ⲗ, which is exceptional both because of the case marking on ⲕⲁⲟ̆ⲕⲁ instead of on the RC and the presence of a relative pronoun ⲉ̱ⲛ̄, which is unusual in coreferential clauses; we would expect either something like **kajou digika* or **digel kajka*. It may be posited provisionally that the curious placement of the accusative case and the appearance of the complementizer are related, but for the moment I am unable venture a syntactical explanation.

60 BROWNE, *Old Nubian Dictionary*, p. 167.
61 BECHHAUS-GERST, *The (Hi)story of Nobiin*, p. 212.

7 Preterite tense morphology

In his *Old Nubian Grammar,* Browne suggests that the distinction between the preterite 1 and preterite 2 forms of the verb is to be found in the broad realm of aspectual difference. However, he makes a cursory remark that the preterite 2 forms are always found when the subject is marked with the genitive case, and that in other cases the preterite 1 form is used.[62] We recall here that a genitive subject only appears in non-coreferential attributive clauses. Therefore we could tentatively reformulate Browne's casual observation more rigorously: In order to express the past tense, preterite 1 suffixes are used within coreferential attributive clauses, whereas preterite 2 suffixes are used within non-coreferential attributive clauses.

53

Please consider the following typical examples:

ⲥ̄ⲗⲟ ⲡⲓⲛⲁ ïⲟⲩⲇⲁⲓⲟⲥⲅⲟⲩⲛ ⲟⲩⲣⲟⲩⲟⲩ ⲟⲩⲛⲛⲟⲩⲧⲁⲕⲟⲗ   90a

is-lo   pi-na   [*ioudaios-gou-n   ourou-ou*   = ex. 5

inter-LOC exist-PRS.2/3SG   Jew-PL-GEN   king-J

[_{rel} *ounn-outak-o*]]-*l*

bear-PASS-PT1-DET

"Where is the born king of the Jews?" (coreferential)

ⲕⲟⲩⲙⲡⲟⲩ ⲉ̄ⲛ ⲧⲁⲛ`ⲛⲁ ⲕ̄ⲛ̄ⲥ̄ⳑ ⳑⲟⲩⲙⲁⳑ ⳑⲟⲩⲧⲣⲁⲡ` ⲁ̄ⲫⲣⲁ̄ⲅⲁ   90b

[*koumpou* [_{rel} *ein* [*tan-na   kip-s*]]]-*il*   = ex. 13

   egg   REL   3SG-GEN   eat-PT2-DET

doumal   doutrap añ-r-aŋ-a

suddenly fowl   live-TR-INCH-PRED

"The egg that he had eaten suddenly coming to life as a fowl"

(non-coreferential)

The first example shows a coreferential attributive clause ⲟⲩⲛⲛⲟⲩⲧⲁⲕⲟⲗ, with a preterite 1 suffix -ⲟ, whereas the second example features a non-coreferential attributive clauseⲉ̄ⲛ ⲧⲁⲛ`ⲛⲁ ⲕ̄ⲛ̄ⲥ̄ⳑ, with a preterite 2 suffix -ⲥ. This distinction holds for all previously cited examples.

The morphological distinction between these two classes of attributive RCs with preterite/past tense morphology may still be found, albeit sometimes morphologically or phonologically reduced (and glossed differently), in Nobiin:

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62 BROWNE, *Old Nubian Grammar,* §3.9.7a.

91a
CF 502
Nobiin

man   buru [*rel ik-ka   doll-o*]   *ii*
DEM.DIST girl   2SG-ACC love-COMP4 NOM
tan-juti-li
3SG.POSS-niece-COP2.PRS.3SG
"The girl who loved you is his niece" (coreferential)

54

91b
CF 498
Nobiin

man   buru [*rel ir-iin   doll-siin*]   *ii*
DEM.DIST girl   2SG-GEN love-COMP2 NOM
tan-juti-li
3SG.POSS-niece-COP2.PRS.3SG
"The girl whom you loved is his niece" (non-coreferential)

And in Kenzi:

92a
= ex. 1b

tod [*rel een-gi   jom-e*]-*l   nog-s-u*
boy   woman-ACC hit-PST-REL go-PST-3SG
"The boy that hit the woman left" (coreferential)

92b
NRC 2ci
Kenzi

tod [*rel een   jom-si*]-*n   nog-s-u*
boy   woman hit-PST.3SG-REL go-PST-3SG
"The boy that the woman hit left" (non-coreferential)

This morphological distinction between preterite verb morphology in coreferential and non-coreferential RCs is absent in Andaandi, although Jakobi and El-Guzuuli point out that the innovative preterite 1 suffix -*ko* is always substituted by preterite 2 suffix -*s*.

93a
RCA 8c
Andaandi

ar   in   kaa=gi   goñ-kor-u
1PL DEM.PROX house=ACC build-PT1-1PL
"We have built this house"

93b
RCA 8b
Andaandi

in   tannan kaa [*rel ar   goñ-s-u*]
DEM.PROX COP   house   1PL build-PT2-1PL
"This is the house we have built"

8 Conclusions

In this article I have given an overview of Old Nubian RCs based on a thorough investigation of the examples and explanations in extant scholarly literature, complemented with new material, both from Old Nubian and modern Nile Nubian languages. As I have shown, comparative evidence from modern languages is at several instances of invaluable assistance for formulating the right analyses for Old Nubian grammar.

Based on our observations as regards Old Nubian ʀᴄs, we could summarize our findings as follows, split along the three types originally described by Satzinger as "A," "B1," and "B2."

	Coreferential ʀᴄ ("A")	Non-coreferential ʀᴄ with overt subject/ without agreement ("B1")	Non-coreferential ʀᴄ without overt subject/ with agreement ("B2")
Relative pronoun ⲉⲓⲛ/ⲙⲁⲛ	No	Yes	Yes
Anaphoric construction	No	Yes	Yes
Extraposition	No	Yes, with doubled case morphology	Yes, without doubled case morphology
Prenominal ʀᴄ	Marked with determiner -ⲓⲗ and with restrictive meaning (left dislocation)	Marked with juncture vowel -ⲟⲩ, subject possibly in nominative case(?)	Marked with juncture vowel -ⲟⲩ
Topicalization with -ⲥⲛ̄	Yes	Yes	Yes
Preterite tense morphology	Preterite 1 (-ⲁ/-ⲟ)	Preterite 2 (-ⲉⲥ/-ⲓⲥ)	Preterite 2 (-ⲉⲥ/-ⲓⲥ)

Table 1. Overview of Old Nubian ʀᴄs

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The Verbal Plural Marker in Nobiin (Nile Nubian)

Mohamed K. Khalil

1. Introduction

This paper is concerned with the verbal suffix –*j*. In his book, Grammatik des Nobiin, Werner uses the term "Pluralobjekt-Erweiterung," i.e. plural object extension.[1] But this term is not quite precise because, apart from marking the plural object in the transitive clause, –*j* has additional functions including the marking of the plural subject of intransitive verbs as well as the marking of repeated or intensive actions. The suffix also has cultural connotations. Therefore, in order not to limit its function, the simple term "*j*-suffix" is used instead of plural object extension. This paper is arranged in six sections. In the second section, I discuss the phonological changes and I investigate how the pronunciation of –*j* is modified due to the assimilation of the adjacent consonants. In the third section I consider how the *j*-suffix is used to mark participant plurality in both transitive and intransitive clauses. In the fourth section I describe how the *j*-suffix is used to mark event plurality on verbs. In the fifth section, specific functions of the *j*-suffix, related to the inherited cultural aspects, are investigated. Finally a summary of findings is added in the last section.

This paper is devoted to the suffixation of –*j* focusing on the dialect of Mahas which is spoken in the Nile Valley of northern Sudan in an area that begins approximately forty-five kilometres north of the contemporary city of Dongola and covers all the way northward until about sixty-five kilometres downstream the third cataract. Other Nobiin dialects, i.e. Sokkot and Halfa, are also mentioned in the second section to provide some illustrations of the dialectal differences in the Nobiin language which are related to the phonological changes triggered by the *j*-suffix.

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[1] WERNER, *Grammatik des Nobiin*, p. 173.

2. The phonological changes caused by the *j*-suffix

Werner presented a valuable remark when he noticed that the morpheme *–j* changes phonologically the first singular preterite 1 verbal suffix *–is* to *–š* in the transitive clause, as he illustrated this in ex. 1.[2] This example is taken from the Sokkot dialect.[3]

1   *ay   mug-rii-ga   tur-iš*
1SG dog-PL-ACC   chase-*j*.PT1.1SG
"I chased the dogs away"

It must be noted that this preterite 1 form [*turiš*], which is the realization of **tur-j-is,* is found in the dialects of Sokkot and Halfa but not in the dialect of Mahas, in which only the form *tur-j-is* is used.

   Following Werner's discovery of the phonological change produced by the suffixation of *–j* in the first singular preterite 1 form, another assimilatory phonological change is found in the dialects of Halfa and Sokkot when *–j* is suffixed to the third person plural verb form of the verb *toog,* as demonstrated in ex. 2. The form [*toogiššan*] is a realization of **toog-ij-s-an* but this preterite 1 form is barely used in the dialect of Mahas.

2   *ter assar-ii-g   toog-iš-š-an*
3PL child-PL-ACC   beat-*j*-PT1-3PL
"They beat the children"

For further illustration, the simplified table 1 is developed to demonstrate how these phonological changes may occur when the *j*-suffix is attached to the verb root in these two specific preterite 1 forms, i.e. the first singular preterite 1, and the third plural preterite 1, according to the different dialects of Nobiin.

Table 1.
Phonological
change produced
by *–j* in 1SG and
3PL PT1 forms

verb	-*j*-PT1.1SG Halfa/ Sokkot	-*j*-PT1.1SG Mahas	-*j*-PT1-3PL Halfa/ Sokkot	-*j*-PT1-3PL Mahas
tur "chase out"	*tur-iš*	*tur-j-is*	*tur-iš-š-an*	*tur-j-is-an*
doog "ride"	*doog-iš*	*doog-j-is*	*doog-iš-š-an*	*doog-j-is-an*

2   Ibid., p. 302.
3   Abbreviations: * – unattested; 1, 2, 3 – 1st, 2nd, 3rd person; *a* – the *a*-suffix; ACC – accusative; AFF – affirmative; CAUS – causative; COMPL – completive aspect; CONT – continuous; EMP – emphasizer; FUT – future; GEN – genitive; HAB – habitual; IMP – imperative; *j* – the *j*-suffix; LOC – locative; NEG – negation; PL – plural; PRS – present; PT1 – preterite 1; SG – singular.

verb	-j-PT1.1SG Halfa/ Sokkot	-j-PT1.1SG Mahas	-j-PT1-3PL Halfa/ Sokkot	-j-PT1-3PL Mahas
moon "refuse"	moon-iš	moon-j-is	moon-iš-š-an	moon-j-is-an
diŋŋ "fight"	diŋŋ-iš	diŋŋ-ic-is	diŋŋ-iš-š-an	diŋŋ-ic-s-an

Table 1 demonstrates that the suffixation of –j in these two specific preterite forms renders similar assimilatory changes according to the dialects of Halfa and Sokkot. This assimilatory change is not seen in the dialect of Mahas, which is the dialect of interest in this paper. However, according to the dialect of Mahas, a different type of phonological change can be observed. The j-suffix is realized as [ic] when it follows two specific root-final consonants, i.e. /ŋŋ/ as in the case of diŋŋ "fight." As shown in table 1, the first singular preterite 1 form and third plural preterite 1 form of the root verb diŋŋ are realized as [diŋŋicis] and [diŋŋicisan], respectively. Now this phonological change is conditioned by the sequence of the two root-final consonants and the j-suffix and one of these two inflectional preterite 1 suffixes, –is and –is-an. Subsequently, more information about this specific assimilatory change is found by performing a simple phonological experiment demonstrated in table 2. In this table, the j-suffix is tested with all possible root-final consonants, that is, the voiceless stops /t, c, k/, the voiced stops /b, d, j, g/, the voiceless fricatives /f, s, š/, the nasals /m, ñ, ŋ/, the liquids /l/ and /r/, and finally with the approximants /w/ and /y/. Although the glottal fricative /h/ belongs to the consonant inventory of Nobiin, /h/ is not attested in root-final position. Also in this experiment, there is evidence of tone playing a role in the phonological behavior of the j-suffix. As illustrated in table 2, it is noticed that when the j-suffix is attached to a high-tone verb root, whose root ends in /ir/, it is realized as [j], for example, wíir-j-is-an, which represents the third plural preterite 1 form of wíir "be away," and míir-j-is-an, which is the third plural preterite 1 form of míir "block or "prevent from movement." In contrast, when the j-suffix is attached to a low-tone verb root whose root ends in /ir/, the j-suffix and the root-final /r/ undergo a reciprocal assimilation and are realized as [cc], for example, tìr plus –j "give" is realized as [tìccisan] in its third plural preterite 1 form.

consonant	verb	-j-PT1.1SG	-j-PT1-3PL
/t/	eriit "dirt, soot the body"	eriit-j-is	eriit-j-is-an

Table 2. Phonological changes triggered by the j-suffix

consonant	verb	-j-PT1.1SG	-j-PT1-3PL
/c/	*wicc* "throw the fishhook for casting"	*wicc-ij-is* → *wiccicis*	*wicc-ij-s-an* → *wiccicsan*
/k/	*šaak* "hew, stab"	*šaak-j-is*	*šaak-j-is-an*
/b/	*jaab* "rub on something"	*jaab-j-is*	*jaab-j-is-an*
/d/	*kud* "stuff, fill with a padding"	*kud-j-is*	*kud-j-is-an*
/j/	*faaj* "divorce"	*faaj-j-is* → *faaccis*	*faaj-j-s-an* → *faaccisan*
/g/	*mug* "leave"	*mug-j-is*	*mug-j-is-an*
/f/	*guf* "buff"	*guf-j-is*	*guf-j-is-an*
/s/	*kus* "untie, unleash"	*kus-j-is*	*kus-j-is-an*
/š/	*tuš* "stray"	*tuš-j-is*	*tuš-j-is-an*
/m/	*gum* "evaporate, steam"	*gum-j-is*	*gum-j-is-an*
/n/	*moon* "refuse"	*moon-j-is*	*moon-j-is-an*
/ñ/	*dooñ* "raise a child"	*dooñ-j-is*	*dooñ-j-is-an*
/ŋ/	*soŋ* "wash clothes with hands"	*soŋ-j-is* → *soŋcis*	*soŋ-j-is-an* → *soŋcisan*
/l/	*jaal* "snub, get it in the neck"	*jaal-j-is*	*jaal-j-is-an*
/r/ preceded by a high-tone verb root	*míir* "prevent from movement, block"	*míir-j-is*	*míir-j-is-an*
/r/ preceded by a low-tone verb root	*tìr* "give"	*tìr-j-is* → *tìccis*	*tìr-j-is-an* → *tìccisan*
/w/	*iiw* "breed animal"	*iiw-j-is*	*iiw-j-is-an*
/y/	*kaay* "make"	*kaay-j-is*	*kaay-j-is-an*

The test suggests that *–j* is realized as voiceless plosive [*c*] when preceded by one of the three root-final consonants: the voiceless plosive

/c/, e.g. *wicc-ic-s-an,* the voiced plosive /j/, e.g. *faac-c-is,* and the velar nasal /ŋ/, e.g. in *soŋ-c-is.* The remaining root-final consonants are found to be phonetically insensitive to *–j.* Furthermore, from this experiment it may be noticed that the phonological behavior of the *j*-suffix does not depend only on the root final-consonant but also on the tone of the preceding verb root. The reciprocal assimilation illustrated in table 2, which occurs when *–j* is attached to a low-tone verb root is not restricted to roots ending in /ir/. In fact, it may occur with a verb root that ends with /ar/, e.g. *kàr* which is the plural form of *kir* "come." When the *j*-suffix is attached to the root *kàr* it is realized as [kàcc], as observed in its third plural preterite 1 form *kàc-c-is-an.* This increases the probability that this type of reciprocal assimilation can also occur with other low-tone verb roots, e.g. roots ending in /er/, /or/, or /ur/. Therefore, the phonological behavior of the *j*-suffix requires a more thorough investigation in the future.

In addition, the conditioned variants of *–j,* i.e. the allomorphs *–ij* and *–ic* are required to prevent the co-occurrence of more than two consecutive consonants. An example of this case is the verb root *dumm* "take" and the verb root *diŋŋ* "fight" whose roots end in two consonants. That when they are used with the *j*-suffix and the two preterite 1 forms, they take the allomorphs *–ij* and *–ic,* respectively. These two verb roots are realized as [dummijis] and [diŋŋicis] in the first singular preterite 1 form and as [dummijisan] and [diŋŋicisan] in the third plural preterite 1 form, respectively.

3. The *j*-suffix marks the plurality of participants

Unless one of the two applicative extensions, *–tir* and *–deen,* or the causative extension *–kir* are attached to the verb root, the *j*-suffix and its allomorphs *–ij, –ic,* and *–c* are always attached directly to the verb root preceding other verbal suffixes such as the person, tense, and number inflectional suffixes. When an applicative or a causative suffix is present then *–j* or its allomorphs *–ij, –ic,* and *–c* appear after the applicative or causative extension and before the inflectional suffixes.

In the following sections, it is shown that *–j* is used to mark the plurality of the object of a transitive clause, or the plurality of the indirect object of a ditransitive clause, or the plurality of the subject of an intransitive clause.

3.1 The j-suffix in the transitive clause
The function of the *j*-suffix in the transitive clause is to indicate the plurality of the object. This is clearly elucidated in the following

exx. 3 and 4. When the object *tii* of ex. 3 becomes plural, i.e. *tii-guu* in ex. 4, then the *j*-suffix is required in the transitive clause.

3   *ay   tii-ga   aag   jurr-il*
     1SG COW-ACC CONT milk-PRS.1SG
     "I am milking the cow"

4   *ay   tii-guu-ga   aag   jurr-ij-il*
     1SG COW-PL-ACC CONT milk-*j*-PRS.1SG
     "I am milking the cows"

3.2 *The j-suffix in the ditransitive clause*
Ditransitive verbs in Nobiin are formed by suffixing the applicative extensions *tir* and *deen* or the causative extension *kir* to the verb root. Furthermore, in ditransitive clauses the *j*-suffix only indicates the plurality of the indirect object, while the plurality of the direct object is not reflected by the suffixation of *–j*, as observed when comparing exx. 5, 6, and 7, where *torbar* and *torbar-ii* represent the indirect objects in the three examples while *aŋŋaree* and *aŋŋaree-ñci* represent the direct objects, respectively.

5   *ay   torbar-ka   aŋŋaree-g kaay-a-tis*[4]
     1SG farmer-ACC bed-ACC   make-*a*-APPL.PT1.1SG
     "I made the farmer a bed."

6   *ay   torbar-ii-ga   aŋŋaree-g kaay-a-tic-c-is*
     1SG farmer-PL-ACC bed-ACC   make-*a*-APPL-*j*-PT1.1SG
     "I made the farmers a bed."

7   *ay   torbar-ka   aŋŋaree-ñci-ga kaay-a-tis*
     1SG farmer-ACC bed-PL-ACC   make-*a*-APPL.PT1.1SG
     "I made the farmer beds."

Ex. 8 demonstrates a ditransitive clause which is formed by adding the causative suffix *–kir*. It may be noticed that due to the suffixation of *–j* the causative suffix is realized as [*ikac*].

8   *ay   assar-ii-ga   nobiin-ŋa   kull-ikac-c-is*
     1SG child-PL-ACC Nobiin-ACC learn-CAUS-*j*-PT1.1SG
     "I taught the children the Nobiin language."

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4   The function of the suffix *–a* attested on the clause-final verbs in exx. 5, 6, 7, 15, and 26 is not yet known. For this reason, it is simply glossed as *–a*.

The causative extension *kir* and the two applicative extensions *tir* and *deen* always show the *j*-suffix in their plural inflectional forms when they are used as independent verbs, as illustrated in the exx. 9, 10 and 11.

ter	*balee-la*	*kac-c-is-an*		9
3PL	wedding-LOC	come-j-PT1-3PL		

"They came to the wedding."

ter	*uu-ga*	*kabak-ka*	*deen-c-is-an*	10
3PL	1PL-ACC	food-ACC	give-j-PT1-3PL	

"They gave us food."

ter	*uk-ka*	*agrees-ka*	*tic-c-is-an*	11
3PL	2PL-ACC	blessing-ACC	give-j-PT1-3PL	

"They gave you (PL) blessing."

3.3 Optional –j in the transitive and ditransitive clauses

In the transitive clause, as illustrated in exx. 12, 13, 14, when the object noun phrase is modified by a numeral or a quantifier such as *mallee* or *minkellee,* the plural marker on the object noun phrase becomes optional and subsequently the suffixation of –*j* becomes optional, too. Similarly, –*j* becomes optional in the ditransitive clause, when the indirect object noun phrase is modified by a numeral or a quantifier, as shown in ex. 15. However the appearance of –*j* is not affected by the use of a quantifier or a numeral in the intransitive clause, as shown in ex. 16.

ay	*tii*	*uwwo-g*	*aag*	*jurr-il*	12
1SG	cow	two-ACC	CONT	milk-PRS.1SG	

"I am milking two cows."

ay	*tii*	*mallee-kka*	*aag*	*jurr-il*	13
1SG	cow	all-ACC	CONT	milk-PRS.1SG	

"I am milking all the cows."

ir	*kaj*	*minkellee-kka*	*kun-i*	14
2SG	donkey	how.many-ACC	have-PRS.2SG	

"How many donkeys do you have?"

ay	*torbar*	*uwwo-g*	*aŋŋaree-ñci-ga*	*kaay-a-tis*	15
1SG	farmer	two-ACC	bed-PL-ACC	make-a-APPL.PT1.1SG	

"I made two farmers beds."

16 *ideen mallee maar-ra-toonfac-ci-s-an*
    woman all village-LOC-from come out-*j*-PRET1-3PL
    "All the women came out from the village."

3.4 The j-suffix in the intransitive clause

In contrast to transitive and ditransitive clauses, the *j*-suffix appears sporadically in the intransitive clause. For this reason, and in order to predict with ease its appearance in the intransitive clause, intransitive verb roots with different syllabic structures are examined below in table 3. In this table I attempt to determine with which verb roots –*j* is expected to appear. This does not mean that the cause of –*j* appearance in the transitive and ditransitive clause only depends on the syllabic structure of the verb root.

Generally, the *j*-suffix is more likely to appear in intransitive verbs with monosyllabic verb roots. By contrast, the *j*-suffix hardly ever appears in intransitive verbs with disyllable root verbs.

Table 3. Possibility of appearance of –*j* with intransitive verbs.

verb	PT1.3PL	syllabic structure	appearance of –*j*
aag "sit"	*aag-j-is-an*	VC/VVC	possible
err "be angry"	*err-ij-s-an*	VCC	possible
dii "die"	*dii-j-is-an*	CV/CVV	obligatory
fal "exit"	*fac-c-is-an*	CVC	obligatory
tiig "sit"	*tiig-j-is-an*	CVVC	rarely
daff "finish, get lost"	*daff-ij-s-an*	CVCC	rarely
bajbaj "drip loudly"	*bajbaj-s-an*	CVCCVC	never
bardakk "run disorderly"	*bardakk-is-an*	CVCCVCC	never

4 The j-suffix marks event plurality

The *j*-suffix can also be used to mark the plurality of events. It functions as a marker for the plurality of actions when it is combined with a habitual event marker *-ken*.

4.1 The j-suffix marking repetitive events

Both Werner[5] and Bechhaus-Gerst[6] state that the function of the suffix –*j* is to mark repetitive events, as Werner illustrated, see ex. 17.

17 *ay neer-j-ir*
    1SG sleep-*j*-PRS.1SG
    "I sleep several times"

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5   WERNER, *Grammatik des Nobiin*, p.173
6   BECHHAUS-GERST, *The (Hi)story of Nobiin*, p.116

Examining this use of the *j*-suffix as a repetitive event marker in the Mahas Nobiin dialect, I found that special adverbs are required to be present to signify the plurality or the repetitiousness of actions, e.g. *diigid-ta, diyyak-ka,* as illustrated in 18 and 19.

				18	67
ay	*aman-ga*	*diigid-ta*	*nii-j-is*		
1SG	water-ACC	many-ACC	drink-j-PT1.1SG		

"I drank water many times"

					19
eliin	*ay*	*illee-g*	*diiya-kka*	*deeg-j-is*	
today	1SG	wheat-ACC	many-ACC	water-j-PT1.1SG	

"Today I watered the wheat many times"

4.2 The j-suffix marking habitual events

The *j*-suffix functions as a habitual event marker when it is followed by the habitual aspect marker *–ken* in the same preterite verbal phrase. It may also be observed in exx. 20 and 21 that the *j*-suffix precedes *–ken*. Furthermore, *–ken* has the allomorph *–kes* when it is followed by the preterite 1 suffix *–s,* as in the case of *tiig-j-ikes-so* in ex. 20. This preterite form [*tiigjikesso*] is a realization of **tiig-j-iken-s-o*. Finally, it may be noted that the aspect marker *–ken* has an allomorph, *–iken,* as seen in ex. 21. This allomorph is selected to avoid unadmitted consonant sequences.

			20
hiddo	*ur*	*tiig-j-ikes-so*	
where	2PL	sit-j-HAB-PT1.2PL	

"Where did you (PL) use to sit?"

					21
shoob-la	*tar*	*noog*	*diigid-ta*	*kun-j-iken-o*	
past.time-LOC	3SG	house	many-ACC	have-j-HAB-PT1.3SG	

"In the past time, he used to have many houses"

5 The *j*-suffix marks special cultural aspects

5.1 The use of –j to reflect politeness or adoration

The *j*-suffix is often attached to the second plural imperative verbs in the dialect of Mahas to emphasize politeness, personal respect, or to reflect feelings of adoration towards the addressee. To illustrate the use of *–j* with imperative forms, table 4 shows three different second plural imperative inflectional forms which are based on the verb root *tiig* "sit."

	verb	IMP.2PL	comment
Table 4. 2PL imperative forms according to the Mahas Nobiin dialect	*tiig*	*tiig-an*	This imperative form implies a direct order to a group of people. It is considered the simplest 2pl imperative form.
	tiig	*tiig-j-an*	This imperative form implies a direct order to a group of people, as the speaker likes to emphasize politeness in his or her order.
	tiig	*tiig-oo-j-an*	This imperative form implies a very polite request rather than an order to a group of people or to a single person, as the speaker likes to emphasize respect, or love emotions in his or her request.

Additionally four exx. 22, 23, 24, 25 are provided below to illustrate this special use of the *j*-suffix. In ex. 22, –*j* is attached to the second plural imperative verb form to address a group of people respectfully. It may also be noticed from exx. 22 and 24 that the final /*n*/ of the second plural imperative suffix –*an* is usually dropped in daily speech, so the suffix is realized as [*a*]. In ex. 23, the *j*-suffix is attached to a second plural imperative form to address a single person as the irregular imperative form *nee* is followed by –*j* and then followed by the affirmative suffix –*imi*/–*mi* to emphasize more politeness. Note that there is vowel alternation in the verb root of *nee-j-imi,* as compared to the singular form *nii-mi* "drink!" which is the form used to address a single person. In ex. 24, the *j*-suffix appears in a quite complex imperative form following the completive aspect suffix –*oo* to show more respect to the addressee as a single person, i.e. in this case the second person singular is addressed.

22 *menj-imeen-an*   *irki-n*   *dawwi-la nog-j-a*
    stop-NEG-IMP.2PL homeland-GEN road-LOC go-j-IMP.2PL
    "Never stop! Go to the road of the homeland!"

23 *kir*   *uu-dan*   *abree-ga nee-j-imi*
    come.IMP.2SG 1PL-with *abree*-ACC drink-IMP.2PL-j-AFF
    "Come close! Drink *abree* with us!"

24 *faddall-oo-j-a*   *awwo kir*
    welcome-COMPL-J-IMP.2PL inside come:IMP.2SG
    tiig-oo-j-a
    sit-COMPL-j-IMP.2PL
    "Welcome! Come inside and sit!"

Moreover, the *j*-suffix may be used in the same complex imperative form addressing a single person, i.e. the second person singular to persuade a lover to do something for the sake of love and tenderness, as elucidated in ex. 25, which is a section of a contemporary Nobiin song. It may also be noted that this particular use is common in poetic expressions and folk songs.

ir   ay-ga   jill-imun   wala ay-dogo   25
2SG 1SG-ACC remember-PRS.2SG.NEG or   1SG-to
wiid-mun   kir   nal-oo-j-a
return-PRS.2SG.NEG come.IMP.2SG greet-COMPL-j-IMP.2PL
nalti-l   min daaf-i
greeting-LOC   what be.inside-PRS.3SG
"You don't remember me or return to me, please come greet me, dear! What's wrong with a greeting?"

5.2 The use of –j to reflect divinity and sacredness
The *j*-suffix can also be attached to second singular forms of verbs to reflect sacredness when the divinity or the mighty God is addressed in the speech. This use is repetitively expressed in the folk Nobiin hymn *salla,* as shown in ex. 26.

woo noor wiyyan ik-ka   26
oh   Lord always 2SG-ACC
fedd-ij-l-ee   ir   ay-ga-m
request-j-PRS.1SG-EMP 2SG 1SG-ACC-AFF
dell-ikir-a   deen-c-ee[7]
increase-CAUS-a   give-j-PRS.2SG
"Oh Lord, I always ask you to give me. You give me in abundance."

5.3 The use of the j-suffix to express figurative semantics
An unusual use for –j, as illustrated in ex. 27, is also found in the language when the speaker intends to express figurative meanings in the sentence for poetic and the artistic purposes.

maañ-ii-l   jakki fa   dii-j-in   27
eye-PL-LOC fear FUT die-j-PRS.3SG
nuuba-g   gurumme fa   mug-j-in
Nubia-ACC darkness FUT   leave-j-PRS.3SG
"The fear will die in the eyes. The darkness will leave Nubia."

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[7] As per the dialect of Mahas, the proper inflectional suffix expected to be used in this case is for *–in* or its simplified allomorph *–i*. The appearance of the long vowel *ee* instead is most probably due to keeping the poetic rhyme. However, once this morpheme *–ee* functions as a second personal inflectional suffix, it is considered as an allomorph of *–in*.

6. Conclusions

To sum up, in Mahas Nobiin the *j*-suffix is realized as [*c*] when it is attached to verb roots, which either end in the plosive /c/ or the voiced plosive /j/ or the velar nasal /ŋ/. Also it is discovered that tone plays a role in the phonological behavior of the *j*-suffix: When –*j* is attached to a low-tone verb root which ends in /ir/ or /ar/ (and possibly with other root vowels), the *j*-suffix and the root-final /r/ undergo a reciprocal assimilation and are realized as [*cc*]. Therefore, a thorough investigation of the phonological behavior is required in the future. The allomorphs of the *j*-suffix, i.e. –*ij* and -*ic* are required in order to avoid unadmitted sequences of more than two consonants. The *j*-suffix marks the plurality of participants in transitive, ditransitive, and intransitive clauses. It appears frequently in transitive and ditransitive clauses and occasionally in intransitive clauses. The occurrence of numerals and quantifiers after the object noun phrase renders its presence. But the occurrence of numerals and quantifiers after the subject noun phrase in intransitive clauses does not affect the appearance of –*j*. As shown in tables 1, 2, and 3, the *j*-suffix is widely attested on monosyllabic verb roots but on disyllabic verb roots it does not occur. In addition, the *j*-suffix is used to indicate the plurality of actions, that is, repeated events and to express – in combination with the habitual suffix -*ken* and the preterite 1 – habitual events. Lastly, the *j*-suffix occurs in polite requests and poetic language to express certain meanings related to Nobiin culture.

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Relative Clauses in Andaandi (Nile Nubian)

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1. Introduction

Relative clauses (hereafter abbreviated as RCs)[1] are used as attributive modifiers of noun phrases (nouns and pronouns). They are subordinate clauses since they are morphosyntactically dependent on the semanto-syntactic role of the modified noun phrase.

Typological studies show that languages vary in how RCs are formally treated.[2] As for the position of the RCs in relation to their head (i.e. the noun phrase modified by the RC), there are basically two types of RC constructions, one in which the RC follows its head and another one where the RC precedes its head. In Andaandi, as we will show in detail below, RCs commonly follow the head, i.e. RCs are postnominal. This position is common for other attributive modifiers (e.g. adjectives and quantifiers), too.

In some languages RCs take the same form as a main clause with a possible addition of a RC marker or a relative pronoun. RCs in Andaandi, however, neither take a relative pronoun nor a RC marker. The absence of a RC marker is a noteworthy feature since RCs in Taglennaa (also referred to as Tagle), a genetically related Kordofan Nubian language, are all characterized by the relative marker –r on the finite verb.[3]

In some languages, RCs resemble main clauses, in other languages, RCs and main clauses differ. In Andaandi, RCs differ from main

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1   Abbreviations used: 1, 2, 3 – 1st, 2nd, 3rd person; A – Agent; ABL – ablative; ACC – accusative; AD – adessive; APPL – applicative; B – Beneficiary; COM – comitative; COP – copula; FUT – future; GEN – genitive; HUM – human; INCH – inchoative; INS – instrumental; IPF – imperfective; LNK – linker; LOC – locative; NEG – negation; P – Patient; PF – perfective; PL – plural; PRED – predication; PT1 – preterite 1 (-kor); PT2 – preterite 2 (-s); PTC – participle; R – recipient; RC – relative clause; S – Subject of intransitive clause; SG – singular; T – Theme.

2   DRYER, "Noun Phrase Structure," pp. 191–3.

3   IBRAHIM & JAKOBI, "The relative clause in Taglennaa."

clauses in not admitting preterite 1 forms marked by *–ko-r*. Rather, RCs behave like other subordinate clauses in employing the preterite 2 suffix *–s* when expressing past events.

Typological studies suggest that RCs often "do not fully resemble main/independent clauses and demonstrate some degree of nominalization."[4] This is true for RCs in Andaandi, too. Nominalization is realized by several means, for instance, by converting the relative clause into a participial construction. This device is restricted to RCs whose head represents an intransitive or transitive subject. In other RCs the inflected verb can take the plural suffix *–i,* which is otherwise found on nouns. Another feature attesting the nominalization of RCs is that they may optionally be marked by the suffix *–tirti* (SG) or *-tirtinci* (PL) when the head noun has an unknown human referent. These characteristics of nominalization will be considered in more detail below.

2. Previous studies of RCs in Andaandi

Andaandi (also known as Dongolawi and Dongolese) is a Nubian language spoken in the Nile Valley of northern Sudan, roughly from the third cataract upstream until Ed-Debba on the large bend of the Nile. In previous studies, RCs in Andaandi have not received much attention.[5] Armbruster does not use the term "relative clause," rather he uses the term "adjective clause."[6] He recognizes that the adjective clause "occupies the same position in the sentence as the adjective; when used attributively it follows the noun it describes, explains or refers to." This observation agrees with our view of RCs as attributive modifiers of noun phrases. Also we agree with Armbruster's finding that an RC (or for that matter an adjective clause) "requires nothing to introduce it," being "devoid of the introductory relative pronoun."[7] Similar to Armbruster's term "adjective clause," Massenbach uses the term attributive clause ("Attributsatz").[8] We agree with her description which says that these clauses often follow the noun like an attributive adjective. However, Massenbach does not strictly distinguish between relative clauses on one side and adverbial and complement clauses on the other. These latter are characterized by case markers attaching to the final verb of the sub-

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4   NIKOLAEVA, "Relative Clauses," p. 502.
5   As for the closely related Kunuz language, ABDEL-HAFIZ, "Focus Constructions in Kunuz Nubian," discusses RCs in the context of focus constructions
6   ARMBRUSTER, *Dongolese Nubian: A Grammar*, §6161.
7   Ibid., §5406.
8   MASSENBACH, "Eine grammatische Skizze des Dongolawi," pp. 304–5.

ordinate clauses.[9] This is, as we will show below, not a characteristic of relative clauses.

Unlike Armbruster who ignores the suffix *-tirti,* Massenbach[10] notes that a RC (or for that matter an "Attributsatz") with an indefinite human referent is marked by that suffix. However, she does not mention that this suffix has a plural form, *tirti-nci* and that it is not attested on RCs whose heads are syntactic subjects of intransitive and transitive clauses (S or A).

Neither Armbruster nor Massenbach point out that there are several distinct relativization strategies and that the choice between them is determined by the semanto-syntactic role of the noun phrase modified by a RC. To show this is the aim of our paper.

3. Participles as modifiers of noun phrases

In Andaandi, noun phrases may be modified by RCs or participles (or participle clauses). The choice between these two strategies depends on the semanto-syntactic role of the noun phrase. As seen in exx. 1–7, noun phrases with the role of S (subject of intransitive clause) or A (subject of transitive clause) are modified by participles, but noun phrases with the role of P (object of transitive clause) or with more peripheral roles are modified by RCs. Since S and A are grammatically treated alike and P differently, this system of grammatical relations suggests a (nominative-) accusative alignment pattern.

3.1 *Participles modifying S noun phrases*
Participles typically have verb-like and noun-like characteristics. In Andaandi, participles resemble nouns, as they may take the nominal plural suffix *-i* (as in ex. 3) in agreement with the plurality of the modified noun phrase. As for their verb-like features, Andaandi participles are inflected for aspect, as they take either the perfective or the imperfective aspect marker, *-el* or *-il,* respectively. Moreover, participles modifying an S or A noun phrase can be intransitive or transitive, having one or two arguments, respectively. However, unlike fully inflected verbs, participles are non-finite verb forms, as they lack pronominal suffixes cross-referencing their syntactic subject.

In ex. 1 the intransitive participle *dab-el* modifies its syntactic subject S, *hanu.* Within the main clause, however, the syntactic subject of the transitive verb, *el-kor-i,* is represented by the 1st person singular pronoun *ay,* whereas *hanu dabel=gi* represents the ACC-marked object noun phrase.

9 JAKOBI & EL-GUZUULI, "Heterosemy of Case Markers and Clause Linkers in Andaandi (Nile Nubian)."
10 MASSENBACH, "Eine grammatische Skizze des Dongolawi," pp. 304–5.

1   *ay   hanu*   [*dab-el*]=*gi*   *el-kor-i*
      1SG donkey   lose-PTC.PF=ACC find-PT1-1SG
      "I found the donkey that was lost"

In ex. 2, the subject noun phrase *ogij* is modified by the intransitive participle clause in *kaa=r aag-il.*

2   *ogij* [*in*   *kaa=r*   *aag-il*]   *am-beena-n*
      man   this house=LOC live-PTC.IPF 1PL.GEN-uncle-COP.3SG
      "The man who lives in this house is my uncle" / "The man living in this house is my uncle"

In ex. 3, there is number agreement between the intransitive subject noun phrase, *adem-i,* and the modifying participle. This is shown by the plural marker *-i* on *masur-an-el-i.* The participle clause is extended by the noun *masur* "Egypt" with the role of Goal assigned to it by the directed motion verb *an* "go to."[11]

3   *adem-i*   [*masur-an-el*]-*i*   *wide   taa-gor-an*
      person-PL   Egypt-go.to-PTC.PF-PL return come-PT1-3PL
      "The people who went to Egypt have come back"

Ex. 4 represents a nominal predication involving the invariable predication marker *tannan.* The noun phrase *hanu* is modified by the participle *diyel.* The GEN-marking on the participle indicates that the modified noun phrase hanu *diyel=n* has the role of Possessor, the following noun, *bitaan,* having the role of Possessee.

4   *in   tannan hanu*   [*diy-el*]=*n*   *bitaan*
      this PRED donkey   die-PTC.PF=GEN child
      "This is the foal of the donkey that died"

3.2 Participles modifying A noun phrases

Apart from the intransitive subject S, the transitive subject A may be modified by a participle, too. In ex. 5, the unmarked noun phrase *ogij* represents the syntactic subject A of the transitive participle *goñ-el.* The noun phrase in *kaa=gi* represents the ACC-marked syntactic object of that participle.

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11 We assume that the motion verb *an* results from a semantic extension of the verb *an* "say" (which differs from the verb *e* "say," see EL-GUZUULI, "The Uses and Orthography of the Verb 'Say' in Andaandi"). Apart from being a verb of saying and directed motion, *an* is employed as a derivational morpheme marking the inchoative, as seen in ex. 10. Unlike other motion verbs, the verb *an* is cliticized to the locational noun. Probably because of this construction, the noun does not take a locative case marker. This is also attested in exx. 16a–16c and 20b.

ogij [*in   kaa=gi   goñ-el*]   *am-beena-n*   5
man   this house=ACC build-PTC.PF 1PL.GEN-uncle-COP.3SG
"The man who built this house is my uncle"

Ex. 6 represents a nominal predication in which the proximal de-
monstrative *in-gu* "these" is identified with *ogj-i* by means of the in-
variable predication marker *tannan*. The perfective participle *joor-
el-i* agrees in number with the noun phrase *ogj-i*, which represents
the syntactic subject A of the modifying transitive participle. The
ACC-marked noun phrase *bent-i=gi* represents the syntactic object P.

in-gu   tannan ogj-i   [bent-i=gi   joor-el]-i   6
this-PL   PRED   man-PL   date-PL=ACC harvest-PTC.PF-PL
"These are the men who harvested dates"

Ex. 7 illustrates a transitive participle clause modifying A. As ex-
pected, the syntactic subject, *gur,* is unmarked and the syntactic
object is represented by the ACC-marked *ambes=ki*. The whole par-
ticiple clause *gur ambeski nugel* represents the ACC-marked object of
the inflected transitive verb *jaan-ko-n* in the main clause.

am-baab   gur [*am-bes=ki   nug-el*]=gi   7
1PL.GEN-father bull 1PL.GEN-brother=ACC butt-PTC.PF=ACC
jaan-ko-n
sell-PT1-3SG
"My father has sold the bull which has butted my brother"

Unlike S and A which are modified by participles or participle claus-
es, noun phrases having other semanto-syntactic roles are modified
by RCs, as shown in the next section.

4. RCs modifying noun phrases

In the following we are first concerned with RCs relativizing noun
phrases with the semanto-syntactic role of Patient (P). After that
we will successively consider relativized noun phrases with periph-
eral roles such as Recipient/Beneficiary (R/B), Theme (T), Possessor,
Accompaniment, non-human Location/Goal/Source, human Loca-
tion/Goal, human Source, and Instrument.
    In Andaandi, postnominal RCs are characterized by the following
features:
▸ The head of a RC is shifted to the left, i.e. to the focus position.
▸ The head of the RC is outside of the RC.
▸ In focus position, the head nouns are unmarked for case.

▸ When the head of a RC has an unknown human referent the anaphoric suffixes *-tirti* (SG) or *-tirtinci* (PL) are optionally attached to the verb.

▸ When the head of a RC has a plural referent the suffix *–i* is attached to the verb. When the plural referent is unknown and human, the *i*-suffix may be replaced by *–tirti-nci*.

▸ When referring to a past event the verb of the RC requires the preterite 2 suffix *–s,* the preterite 1 suffix *–kor*[12] is not admitted in RCS.

4.1 RCs modifying noun phrases with the role of Patient
Exx. 8a and 8b represent nominal predications. The head of the RC, *kaa,* has the role of Patient. When comparing exx. 8a and 8b to the corresponding non-RC in ex. 8c one recognizes that the head of the RC has shifted to the left, thus taking the focus position. In this position the object noun phrase, *kaa,* precedes the subject noun phrase, *ar.* Another conspicuous feature of the relativized object is that it does not receive ACC-marking. It is solely syntactically marked by its position. Even if the predication is negated as in ex. 8b these characteristics are present.

8a   *in   tannan kaa   [ar   goñ-s-u]*
        this PRED   house   1PL build-PT2-1PL
        "This is the house we have built"

8b

        in   mun   kaa   [ar   goñ-s-u]
        this PRED.NEG house   1PL build-PT2-1PL
        "This is not the house we have built"

Another difference between exx. 8a and 8b on the one hand and 8c on the other is that the RC verb, *goñ-s-u,* requires the preterite 2 suffix *–s,* whereas the verb of the main clause, *goñ-kor-u* is marked by the preterite 1 suffix *–kor.*

8c   *ar   in   kaa=gi   goñ-kor-u*
        1PL this house=ACC build-PT1-1PL
        "We have built this house"

When the head of the RC refers to an unknown person (for instance, *ogij* "man" in ex. 9a) the suffix *-tirti* is optionally attached to the verb. Unless the verb ends in a nasal, *-tirti* is attached to it by means of the linker *–n* (glossed as LNK).

12 The preterite 1 suffix *-kor* is composed of *–ko* and *–r.* It is realized in the 1st person singular as *-kori,* in the 2nd and 3rd person as *-kon,* in the 1st and 2nd person plural as *-koru,* and in the 3rd person plural *-koran.*

Because of its position after the finite verb of the RC, *-tirti* on first sight looks like a subordinator. However, *-tirti* differs from subordinators, as it has a singular and a plural form. This is not attested by any subordinators in Andaandi. As seen exx. 9a and 9b, the choice between the verbal suffixes, *-tirti* and *-tirti-nci,* depends on the number of the entity to which the head of the RC refers. Thus these suffixes can be identified as anaphoric devices signaling that the head of the RC has an unknown human referent.[13] Therefore we suggest to gloss them as HUM. In RCs whose heads have a non-human referent, *-tirti* and *-tirti-nci* are not admitted, as seen in ex. 10. Outside of this grammatical context, *-tirti(-nci)* is used as a lexical noun whose meaning may be rendered in English by "master, owner."[14]

| ogij | [ay | nal-s-i]-n-tirti | ossi=ged | daa-go-n | 9a |
| man | 1SG | see-PT2-1SG-LNK-HUM | foot=INS | go.along-PT1-3SG | |

"The man I saw was walking (on foot)."

| ogj-i | [ay | nal-s-i]-n-tirti-nci | ossi=ged | 9b |
| man-PL | 1SG | see-PT2-1SG-LNK-HUM-PL | foot=INS | |

daa-gor-an
go.along-PT1-3PL
"The men I saw were walking (on foot)."

The optional selection of the suffixes *-tirti* / *-tirti-nci* is attested by exx. 9c and 9d. Although the RC heads *ogij* and *ogj-i* have human referents the suffixes *-tirti* / *-tirti-nci* are not required.

| ogij | [ay | nal-s-i] | ossi=ged | daa-go-n | 9c |
| man | 1SG | see-PT2-1SG | foot=INS | go.along-PT1-3SG | |

"The man I saw was walking (on foot)"

| ogj-i | [ay | nal-s-i |]-n-i | ossi=ged | daa-gor-an | 9d |
| man-PL | 1SG | see-PT2-1SG | -LNK-PL | foot=INS | go.along-PT1-3PL | |

"The men I saw were walking (on foot)"

When the head of a RC has a plural referent, as in 9d and 10, the verb of the RC takes a plural *i*-suffix (or optionally the *tirtinci*-suffix when the referent is additionally human). When the verb of the RC ends in a vowel, the *i*-suffix is attached to the verb by means of the linker *–n*. When the inflected verb ends in *-n* (which is the case with 2SG, 3SG, and 3PL), the *-i* suffix is directly attached to the verb, as seen in ex. 10.

13   This function of *-tirti/-tirtinci* is not accounted for in ARMBRUSTER's *Dongolese Nubian: A Grammar.*
14   ARMBRUSTER, *Dongolese Nubian: A Lexicon,* p. 200.

10   koman-i [tir jaan-s-an]-i   takkar-an-kor-an
      shirt-PL 3PL buy-PT2-3PL-PL tight-INCH-PT1-3PL
      "The shirts which they bought became tight"

We assume that the verbal *i*-suffix originates in the nominal plural suffix, as attested on *ogj-i* "men" (ex. 9d) and *koman-i* "shirts" (ex. 10), respectively. Apart from the *i*-suffix, the *tirti(-nci)*-suffixes also originate in nominal morphemes. This finding supports the claim that RCs exhibit "some degree of nominalization."[15]

4.2 RCs modifying noun phrases with the role of Recipient or Beneficiary
Exx. 11 and 12 illustrate a ditransitive RC in which the indirect object with the role of Recipient R is relativized. When the R noun phrase, *šaafa,* is modified by the RC, *ay kiraygi tirsi,* R is shifted to the left so that it precedes the syntactic subject A, *ay.* In that position R is not case-marked.

11   in   tannan šaafa [ay   kiray=gi   tir-s-i]
      this PRED   child 1SG present=ACC give3-PT2-1SG
      "This is the child to whom I gave the present"

As the indirect object is human, the modifying RC may optionally be marked by *tirti,* see ex. 12.

12   in   tannan šaafa [ay   kiray=gi   tir-s-i]-n-tirti
      this PRED   child [1SG present=ACC give3-PT2-1SG-LNK-HUM
      "This is the child to whom I gave the present"

4.3 RCs modifying noun phrases with the role of Theme
In a ditransitive clause, the relativization strategy for the direct object noun phrase T (represented by *kade* in the following example) is basically the same as the one employed for the relativization of P and R/B. That is, T is shifted to the left, without taking a case marker, as seen in ex. 13a.

13a   in   tannan kade [ay   ann-een=gi   jaan tir-s-i]
      this PRED   dress 1SG 1SG.GEN-wife=ACC buy   APPL2/3-PT2-1SG
      "This is the dress that I bought for my wife"

As expected, in the corresponding non-RC (ex. 13b), the constituent order is A-B-T-V, that is, the unmarked syntactic subject A takes the clause-initial position. It precedes the ACC-marked Beneficiary noun phrase, *anneen=gi,* which, in turn, precedes the ACC-marked

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15 NIKOLAEVA, "Relative Clauses," p. 502.

Theme noun phrase, in *kade=gi*. The latter directly precedes the inflected verb in clause-final position.

> ay   ann-een=gi   in   kade=gi   jaan tir-kor-i   13b
> 1SG 1SG.GEN-wife=ACC this dress=ACC buy   APPL2/3-PT1-1SG
> "I bought this dress for my wife."   81

When the T noun phrase has a plural referent, the verb of the RC is marked for plural by the suffix *–i*, as seen in ex. 13b.

> in-gu   tannan kade-nci [ay   ann-een=gi   13c
> this-PL pred   dress-PL   1SG 1SG.GEN-wife=ACC
> jaan   tir-s-i]-n-i
> buy   APPL2/3-PT2-1SG-LNK-PL
>   "These are the dresses that I bought for my wife."

The preceding sections have shown that the relativization of the P, R/B, and T noun phrases has a recurrent pattern. They shift to the focus position thus preceding the RC and they are unmarked for case.

Unlike P, R/B and T noun phrases, the relativization of more peripheral noun phrases requires the presence of a personal pronoun in the RC. This pronoun is commonly known as "resumptive pronoun."[16] It functions as a placeholder for the relativized noun phrase and serves as a host for the case marker encoding the semanto-syntactic role of the relativized noun phrase.

4.4 RCs modifying noun phrases with the role of Possessor
When a noun phrase with a Possessor role is relativized, as *ogij* in ex. 14a, it shifts to the left of the RC without being GEN-marked. Inside the RC, however, the 3rd person pronoun *ter* is co-referential with the head of the RC. The pronoun agrees with the head noun in person and number. Due to the Possessor role of the head noun, *ter* is marked for genitive (*ter=n* being realized as [*tenn*] when followed by a vowel). This pronoun directly precedes the noun phrase having the role of Possessee, here represented by *ossi*.

> in   tannan ogij [tenn   ossi bud-s-in]-tirti   14a
> this PRED   man   3SG.GEN leg dislocated-PT2-3SG-HUM
> "This is the man whose leg was dislocated"

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16 Ibid., p. 503.

In the corresponding non-relativized clause (ex. 14b) the Possessor noun phrase *ogij* is GEN-marked by the clitic *=n* thus linking *ogij* with the Possessee *ossi*.

14b   *ogij=n*   *ossi bud-buu-ko-n*
          man=GEN   leg dislocate-STAT-PT1-3SG
          "The man's leg was dislocated"

In ex. 15a the relativized Possessor noun phrase *kobid* shifts to the left. It is morphologically unmarked. In the RC the Possessor role of the head noun is resumed by the 3SG pronoun *ten*. The possessive noun phrase *ten jer* is coreferential with the possessive noun phrase *kobid=n jer* occurring in the non-RC, see ex. 15b.

15a   *in tannan kobid* [*tir ten*   *jer=ked*   *teeb-s-an*]
          this PRED   door   3PL 3SG.GEN back=INS stand-PT2-3PL
          This is the door behind which they stood (lit. "This is the door at whose back they stood")

Apart from the locative *=r*, the instrumental case marker *=ged* may be employed to express certain locational notions. In 15a and 15b, *=ged* is used in connection with the body part term *jer* "back" expressing the spatial relation "behind."

15b   *tir in kobid=n*   *jer=ked*   *teeb-kor-an*
          3PL this door=GEN   back=INS stand-PT1-3PL
          "They stood behind this door" (lit. "They stood at the back of this door")

4.5 RCs modifying noun phrases with the role of Accompaniment
Ex. 16a illustrates a relativized noun with the role of Accompaniment, the unmarked head of the RC, *ogij*, shifting to the left. Within the RC, the 3SG pronoun *ter* is employed both as a placeholder for the head noun and as a host for the comitative case marker *=gonon*. The morpheme sequence *ter=gonon* is realized as [*tekkonon*].

16a   *in tannan ogij* [*ay tek=konon dungula-an-s-i*]
          this PRED   man 1SG 3SG=COM Dongola-go.to-PT2-1SG
          "This is the man with whom I went to Dongola"

Alternatively, as seen in ex. 16b, the RC may be extended by *-tirti* referring to the human head noun *ogij*.

in	tannan	ogij	[ay	tek=konon	dungula-an-s-i]-n-tirti	16b
this	PRED	man	1SG	3SG=COM	Dongola-go.to-PT2-1SG-LNK-HUM	

"This is the man with whom I went to Dongola"

In the corresponding non-RC (ex. 16c) the role of Accompaniment is
encoded by the comitative case marker =*gonon* which is attached to   83
the noun phrase *ogij.* In this example, this noun phrase is in focus
position and therefore shifted to the left.

in	ogij=konon	ay	dungula-an-kor-i	16c
this	man=COM	1SG	Dongola-go.to-PT1-1SG	

"With this man I went to Dongola"

4.6 RCs modifying noun phrases with the role of non-human Location,
Goal or Source

Relativized noun phrases with the role of Location, Goal, or Source
shift to the left and do not take a case marker. Inside the RC, a re-
sumptive person pronoun hosts the locative or ablative case mark-
ers. When the locative marker =*r* (allomorphs =*ir,* =*do,* =*lo*) is at-
tached to the 3SG pronoun *ter,* the resulting complex morpheme is
realized as [*teddo*]. In 17a, *taga* has the role of Location being encod-
ed by the clitic =*do* on the person pronoun in the RC.

in	tannan	taga	[ar	ted=do	ille=gi	17a
this	PRED	threshing.floor	1PL	3SG=LOC	wheat=ACC	

nuur-s-u]
thresh-PT2-1PL

"This is the threshing floor where we have threshed wheat"

In 17b, the head noun *beled* (a borrowing from Arabic) has the role of
Goal assigned to it by the directed motion verb *taar* "come." The Goal
role is encoded by the locative marker on the resumptive pronoun
ter. As attested by *ogol=lo* in exx. 17b and 17c, the locative marker =*r*
may also encode adverbial expressions of time.

in	tannan	beled	[ay	ter=do	ogol=lo	17b
this	PRED	country	1SG	3SG=LOC	before=LOC	

taa-s-i]
come-PT2-1SG

"This is the country to which I came before"

In the corresponding non-RC (ex. 17c) the locational noun phrase
beled takes the LOC-marker.

17c   *ay   in   beled=ir   ogol=lo   taa-gor-i*
                1SG this country=LOC before=LOC come-PT1-1SG
                "I came to this country before"

In 17d, the head of the RC has the role of Source assigned to it by the directed motion verb *daa* "come (from)." The Source role is encoded by the ablative case marker *=rotoon* (glossed as ABL1) which is hosted by the 3SG resumptive pronoun *ter*. When *=rotoon* is cliticized to *ter* the morpheme sequence is realized as [*teddotoon*].

17d   *beled   [ar   ted=dotoon daa-r-u]   desen warr-in*
                country 1PL   3SG=ABL1 come-R-1PL very far-COP.3SG
                "The country from which we come is very far"

In the next section we will look at similar peripheral roles of nouns having human referents.

4.7 RCs modifying noun phrases with the role of human Location or Goal
In ex. 18a, *doktoor-i* is the head of the RC, the role of Goal being assigned to it by the directed motion verb *juu* "go to." As *doktoor-i* refers to a human being, the adessive case marker *=nar* is selected (rather than the locative *=r*). The clitic *=nar* is attached to the 3PL pronoun *tir* which agrees in person and number with the head noun *doktoor-i*. When *=nar* is attached to the 3PL pronoun *tir* the resulting compound morpheme is realized as [*tinnar*].

18a   *in-gu   tannan doktoor-i [ar   malle tin=nar juu-r-u]*
                this-PL PRED doctor-PL 1PL all   3PL=AD go.to-R-1PL
                "These are the doctors to whom we all go"

Alternatively, in 18b the verb of the RC is extended by *-tirti-nci* reflecting the [+ human] referent of the head noun.

18b   *in-gu   tannan doktoor-i [ar   malle tin=nar*
                this-PL PRED doctor-PL 1PL all   3PL=AD
                juu-r-u]-n-tirti-nci
                go.to-R-1PL-LINK-HUM-PL
                "These are the doctors to whom we all go"

As expected, in the non-relativized clause the case marker *=nar* is attached to the noun phrase having the role of human Goal.

ar	*malle*	*in*	*doktoor-i=nar juu-r-u*			18c
1PL	all	this	doctor-PL=AD go.to-R-1PL			

"We all go to these doctors"

4.8 RCs modifying noun phrases with the role of human Source

Ablative 2 encodes the role of human Source. This semanto-syntac-   85
tic role is represented by *taajir* "merchant" in 19a. When this noun
phrase is relativized, the 3SG pronoun *ter* is inserted as a placeholder
and as a host for the case marker *=nartoon.* The resulting morpheme
sequence is realized as [*tennartoon*].

in	*tannan*	*taajir*	[*ar*	*ten=nartoon*	*umbud=ki jaan-s-u*]	19a
this	PRED	merchant	1PL	3SG=ABL2	salt=ACC buy-PT2-1PL	

"This is the merchant from whom we have bought the salt"

In the corresponding non-RC, the ablative case marker *=nartoon*
(ABL2) is directly attached to the noun phrase having the role of hu-
man Source.

in	*taajir=nartoon*	*ar*	*umbud=ki jaan-kor-u*		19b
this	merchant=ABL2	1PL	salt=ACC buy-PT1-1PL		

"We have bought the salt from this merchant"

4.9 RCs modifying noun phrases with the role of Instrument

The relativization of noun phrases having the role of Instrument
deviates from the patterns we have discussed so far. In ex. 20a, the
relativized noun phrase *arabiyye-nci* has an Instrument role. The in-
strumental case marker *=ged* is found in the RC which is – strange-
ly – hosted by the 3PL possessive pronoun *tin*,[17] rather than by the
3PL personal pronoun *tir.* A phonological explanation is not avail-
able since we would expect the sequence *rg* in the unattested form
*tir=ged to be realized as [*tikked*] – analogous to *ter-gonon* being real-
ized as [*tekkonon*], as seen in ex. 16a.

in-gu	*tannan*	*arabiyye-nci*	[*ar*	*bi*	*tin=ged*	20a
this-PL	PRED	car-PL		1PL	FUT 3PL.GEN=INS	

urdi-an-d-u]
Urdi-go.to-R-1PL

"These are the cars with which we will go to Urdi"

---

17   According to MASSENBACH, "Eine grammatische Skizze des Dongolawi," p. 305, *tin* is a
particle with an instrumental meaning (in German it may be rendered by "damit"). In the
examples she gives, *tin* does not serve as host for *=ged,* as in ex. 20a and 21a, but rather
represents an isolated item, the clitic *=ged* being attached to the verb of the RC or the noun
phrase playing the role of Instrument.

In the corresponding non-relativized clause (ex. 20b), the INS-marked noun phrase has shifted to the left, i.e. to the focus position. In contrast to ex. 20a, the demonstrative *in* does not take the plural suffix *–gu*.[18]

86   20b   *in   arabiyye-nci=ged   ar   bi   urdi-an-d-u*
              this car-PL=INS   1PL   INT   Urdi-go.to-R-1PL
              "With these cars we will go to Urdi"

The RC construction attested in ex. 20a also appears in ex. 21a. That is, *tin* is employed in the RC rather than the 3SG personal pronoun *ter* which we would expect in consideration of the relativized head noun having a singular referent. Thus there is no number agreement between *tin* and the relativized head noun. However *tin* functionally resembles the resumptive pronouns *ter* and *tir*, as *tin* is employed as host of the case marker reflecting the semanto-syntactic role of the head noun.

21a   *in   tannan   kandi* [*ay   tin=ged   kusu=gi   mer-s-i*]
       this PRED   knife   1SG   3PL.GEN=INS   meat=ACC   cut-PT2-1SG
       "This is the knife with which I have cut the meat"

In the following ex. 21b, the noun phrase having the role of Instrument is represented by *kandi* "knife." As this noun functions as head of a RC, it shifts to the left. Strangely, in the RC, the instrumental case marker *=ged* is not hosted by the resumptive pronoun *ter* but rather by the noun *kusu* "meat" although it has the role of Patient rather than the role of Instrument.[19]

21b   *in   tannan   kandi* [*ay   kusu=ged   mer-s-i*]
       this PRED   knife   1SG   meat=INS   cut-PT2-1SG
       "This is the knife with which I have cut the meat"

The corresponding non-RC illustrates the expected patterning of the case markers, with *=gi* on the Patient noun phrase and *=ged* on the Instrument noun phrase.

21c   *ay   kusu=gi   in   kandi=ged   mer-kor-i*
       1SG   meat=ACC   this knife=INS   cut-PT1-1SG
       "I have cut the meat with this knife."

18 The question why the demonstrative does not take a plural marker requires further research.
19 According to Gerrit Dimmendaal (p.c.), the unexpected choice of the P noun phrase as host for the clitic case marker *=ged* shows that the positioning is not iconic. There is some other principle dominating the system, namely avoiding monosyllabic words, and so a host needs to be found. This probably has to do with preferred metrical structures in the language.

The RC construction illustrated in ex. 21b is also attested by the verb *jom* "hit" and the noun *wicciir* "stick," as seen in ex. 22 where the INS-marker is hosted by the Patient noun phrase, *wel* "dog."

<div style="margin-left:2em">

in   tannan   wicciir [*ay   wel=ged jom-s-i*]   22

this PRED   stick   1SG dog=INS hit-PT2-1SG   87

"This is the stick with which I have hit the dog"

</div>

Thus all examples of relativized noun phrases having the role of Instrument suggest that there are some constraints determining the INS-marker to be hosted either by the Patient noun phrase or by *tin*. These weird constructions are not yet fully understood but a more thorough analysis is outside the scope of this paper.

5. Findings

This paper has focused on postnominal RCs, i.e. RCs following their head noun. The head noun is located outside the RC, therefore such RCs are said to be externally headed.

- Andaandi employs several relativization strategies whose selection is determined by the semanto-syntactic role of the head noun.
- Noun phrases having the core roles S and A are relativized – or rather modified – by participles.
- Noun phrases with the roles P, R/B, and T are relativized by shifting them to the left so that they appear in focus position. In this position they are unmarked for case. There is no resumptive pronoun in the RC.
- Except for noun phrases having the role of Instrument, peripheral noun phrases with the role of Possessor, Accompaniment, Location, Goal, and Source shift to the focus position where they are unmarked for case. In the RC, however, a resumptive pronoun is used that agrees in person and number with the head of the RC. This pronoun serves both as a placeholder for the head noun and as a host for the case marker encoding the role of the head noun.
- An even more complex strategy is required for the relativization of noun phrases having the role of Instrument. Such noun phrases are shifted to the left, to the focus position. They are unmarked for case. The RC may have two possible constructions. i) The morpheme *tin* – which looks like the 3rd person plural possessive pronoun – serves as host of the instrumental case marker *=ged*. ii) Alternatively, the case marker *=ged* is attached to the Patient noun phrase. These RC constructions are not yet fully understood and require further research.

Our overview over the successively more complex morphosyntactic devices involved in the relativization of core and peripheral noun phrases suggests that RC formation in Andaandi is sensitive to a hierarchy of grammatical relations. According to Keenan and Comrie's Accessibility Hierarchy,[20] noun phrases having a core relation to the verb are more accessible to relativization than noun phrases with peripheral relations. This is confirmed by the various relativization strategies attested in Andaandi.

Since our paper has been concerned with postnominal RCs, it leaves some questions open, for instance, whether Andaandi also has prenominal RCs and headless RCs. Another topic to be investigated in the future concerns the grammatical interplay between plural object marking and its absence in RCs.

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20 KEENAN & COMRIE, "Noun Phrase Accessibility and Universal Grammar."

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The Uses and Orthography of the Verb "Say" in Andaandi (Nile Nubian)

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1. Introduction

The Andaandi verb *e* has a wide range of uses including the function of a lexical verb, a copula, and a grammatical morpheme combined with other lexical items. In the meta-language English the lexical verb *e* can be rendered as "say, tell," and the copula *e* as "be." The different uses depending on its grammatical context and other conditions make its treatment, grammatically as well as orthographically, complicated to the level that many native speakers do not realize that *e* is a verb, especially as *e* is lacking some grammatical functions that are common for other verbs, for instance, the imperative and the future form.

Andaandi (*an-daa-n-di*) "[the language] of my/our home," is the name applied to the language by its speakers. It is also known by two other terms, 1) the widely used term "Dongolawi," and 2) the English term "Dongolese." "Dongolawi" is an Arabic term based on the name of the town of Old Dongola (*tungul*) on the eastern bank of the Nile, which was the centre of Makuria, the famous Christian kingdom that flourished between the 6th and 14th century. "Dongolawi" is also the name for a native of Dongola. The English term "Dongolese" has the same meaning as "Dongolawi," i.e. it is both the name for a native from Dongola and for the language. In this paper the term Andaandi will be used.[1]

1   http://www.ethnologue.com/language/dgl/

As for its genetic affiliation, Andaandi is a Nubian language, spoken in the Nile Valley of northern Sudan, roughly between the 3rd cataract south of the town Kerma upstream to the big bend of the Nile near Ed-Dabba. The language most closely related to Andaandi is Kenzi (known by the speakers as *Mattokki*) which is spoken in the Nile Valley of southern Egypt.

Andaandi has an sov constituent order in transitive clauses and sv in intransitive clauses, that is, the verb is in clause-final position. The words structure is agglutinative, and grammatical morphemes are suffixed to the root rather than prefixed.

Andaandi also has some dialectical variation in different areas and sometimes in the same area. However, these differences are minor and do not have any grammatical or semantical effects. The main feature of these dialectical variations is related to verb roots ending in a vowel after which, e.g. the preterite 1 marker *-ko* may be realized either with a voiced [g], a voiceless [k], or a glottal fricative [h], e.g. *taagon – taakon – taahon* "he/she has come."

This paper is based on my competence as an Andaandi mother tongue speaker and on the late Charles H. Armbruster's Andaandi (i.e. "Dongolese") grammar and lexicon.[2] Being the first scholar to devise and elucidate a detailed description of Andaandi grammar, Armbruster has explored the many uses and meanings of the verb *e*. He claims that *e* is used to "(a) express a tendency or an intention, i.e. say, (b) exhibit a tendency or quality, i.e. be, (c) behave according to a tendency or an intention, i.e. act [...]."[3] He also claims that there are many composite verbs consisting of two parts, the inflected verb *e* representing the second part. As the first part is "not in independent use," in these compounds *e* is used as a device to form new verbs on the basis of onomatopoeic items, e.g. *gurr-e* "rejoice," lit. "say *gurr*."[4]

Abdel-Hafiz, in his Kunuzi grammar,[5] does not consider *e* as a verb. Massenbach, however, recognizes *e* as a verb meaning "say."[6] She also mentions the "Kopula," (i.e. copula) function.[7] She claims that the future and the participle cannot be formed with the verb *e*,[8] however, in contrast to her findings, the participle, as we will see, can be formed with the verb *e*. In agreement with her findings, I can confirm that *e* is not used in the future tense (see ex. 25).

Interestingly, Andaandi shares the functional extension of the verb "say" to cover both its use as a copula and as a grammatical

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2   ARMBRUSTER, *Dongolese Nubian: A Grammar* and *Dongolese Nubian: A Lexicon.*
3   ARMBRUSTER, *Dongolese Nubian: A Grammar,* §213.
4   Ibid., §2870f.
5   ABDEL-HAFIZ, *A Reference Grammar of Kunuz Nubian,* 1988.
6   MASSENBACH, *Nubische Texte im Dialekt der Kunūzi und der Dongolawi,* p. 184.
7   MASSENBACH, "Eine grammatische Skizze des Dongolawi," p. 285.
8   Ibid.

morpheme with many other languages in East Africa, as Cohen et al.[9] have shown.

The focus of this paper is limited to the following contemporary uses of the verb *e*

▸ as a transitive utterance verb, rendered in English as "say, tell";
▸ as a copular verb, rendered as "be";
▸ as a grammatical morpheme used to express modal and aspectual notions in combination with three specific verbs, *dol* "want," *maa* "get tired," and *daa* "exist, be present."

By providing a set of examples, for each of the above uses, the paper will show that in Andaandi *e* is used both as a lexical verb and as a copular verb. Both verbs would require a separate entry in the lexicon.

2. The use of *e* as a transitive verb of utterance

This section shows that *e* is inflected like a "normal" lexical verb. That is, *e* takes inflectional endings of the neuter in exx. 1 and 2, of the preterite 1 as in exx. 3 and 4, of the preterite 2 as in ex. 5 and the completive aspect marker *-os,* as seen in ex. 6.

Moreover, it shows that *e* is used as an utterance verb introducing direct speech, that is, the speech in the form said by the original speaker. This is illustrated in ex. 8 and also in previous exx. such as 2 and 4.

ⲁⲓ̈ ⲁ2ⲘⲈⲆⲔⲒ ⲚⲞⲄ ⲈⲢⲒ.   1
ay ahmedki nog eri.

    ay   ahmed-ki   nog   e-r-i[10]
    1sg Ahmed-acc   go   say-neut[11]-1sg
    "I say to Ahmed: Go"

ⲁ2ⲘⲈⲆ ⲈⲔⲔⲒ ⲒⲘⲂⲈⲆ ⲂⲞⲞⲆ ⲦⲀⲢ̄ ⲈⲚ.   2
ahmed ekki imbel bood taar[12] en.

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9 Cohen et al., "The grammaticalization of 'say' and 'do.'"
10 Abbreviations used in this paper: 1, 2, 3 - 1st person, 2nd person, 3rd person; acc – accusative; appl1 – applicative cross-referencing 1st person; appl2/3 – applicative cross-referencing 2nd and 3rd person; caus – causative; cond – conditional; emph – emphasis; fut – future; gen – genitive; ins – instrumental; loc – locative; neut – neutral (tense/aspect marker *-r);* pf – perfective; pl – plural; pp - personal pronoun; pl.obj – plural object; pred – predication marker; pt1 – preterite 1 (*-ko-r*); pt2 – preterite 2 (*-s*); ptc – participle; q – question/interrogative; sg – singular.
11 In Abdel-Hafiz, *A Reference Grammar of Kunuz Nubian,* p. 130, the verbal suffix *-r* is termed "neutral tense," since it "may refer to present, past or future." This term is adopted here and abbreviated as neut.
12 According to Rilly, Jakobi, and Jaeger (p.c.), the verb *taar* "come" preserves the final consonant *r* in certain environments, for example, when it is followed by the verb *e.* In other environments this consonant is deleted, as seen in exx. 3 and 4.

ahmed er-ki   imbel bood taar e-n
Ahmed 2SG-ACC stand run come say-3SG[13]
"Ahmed tells you: Get up come running! / Come quickly."

3   ⲁⲓ̈ ⲁⲱⲁⲁⲕⲓ ⲧⲟⲕⲕⲟⲛ ⲧⲁ̄ⲙⲉⲛ ⲉⲅⲟⲣⲓ.[14]
    ay awadki tokkon taamen egori.[14]

    ay awad-ki   tokkon   taa-men   e-go-r-i
    1SG Awad-ACC NEG.IMP come-NEG.IMP.2SG say-PT1-NEUT-1SG
    "I have told Awad: Do not come"

4   ⲁⲱⲁⲁ ⲓⲣⲅⲓ ⲧⲁ̄ⲱⲉ ⲉⲅⲟⲛ.
    awad irgi taawe egon.

    awad ir-gi   taa-we   e-go-n
    Awad 2PL-ACC come-IMP.2PL say-PT1-2SG
    "Awad have said to you: Come!"

5   ⲁⲓ̈ ⲫⲁ̄ⲓ̈ⲍⲁⲅⲓ ⲁⲱⲁⲅⲓ ⲁ̄ⲱ ⲉⲥⲓⲛⲁⲟ ⲉⲣ ⲁⲁ̄ⲅⲟⲙⲟⲩⲛ.
    ay faayzagi ashagi aaw esindo er daagomun.

    ay faayza-gi   asha-gi   aaw   e-s-i-n-do
    1SG Faiza-ACC dinner-ACC make say-PT2-1SG-GEN-LOC
    er   daa-go-mun
    2SG   exist-PT1-NEG
    "When I told Faiza to prepare the dinner you were absent"

6   ⲁⲱⲁⲁ ⲥⲟⲩⲧⲧⲉ ⲃⲓ ⲱⲓⲁⲉ ⲧⲁ̄ⲣⲓ ⲉⲣⲟⲥ ⲛⲟⲅⲕⲟⲛ.
    awad sutte bi wide taari eros nogkon.

    awad sutte   bi wide taa-r-i   er-os   nog-ko-n
    Awad quickly FUT back come-NEUT-1SG say-CPL2 go-PT1-3SG
    "Awad said: I will come back quickly [and] he has gone"

It is worth mentioning that when the suffix *-os* follows the verb *e* the original root-final consonant *-r* reappears. (That is, the same rule, as in the case of *taar* "come," is applied, see fn. 4).

As mentioned above the verb *e* introduces direct speech. This is illustrated in ex. 8 which answers the question in ex. 7.

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13 According to ABDEL-HAFIZ, *A Reference Grammar of Kunuz Nubian,* p. 131, the 2SG and 3SG neutral tense marker *-r* is zero.
14 Dialectical variant: *ekori.*

ⲀⲰⲀⲆ ⳘⲒⲚⲄⲒ ⲈⲚ?   7
awad mingi en?

    awad   min-gi   e-n
    Awad   what-ACC   say-3SG
    "What does Awad say?"   95

ⲀⲎ ⲂⲒ ⲚⲞⲄⲒⲢⲒ ⲈⲚ.   8
ay bi nogiri en.

    ay   bi   nog-ir-i   e-n
    1SG   FUT   go-NEUT-1SG   say-3SG
    "He says: I will go"

The verb *e* in a multi-verb construction illustrated in ex. 9.

ⲀⲰⲀⲆⲔⲒ ⲀⲖⲒ ⲂⲒ ⲚⲞⲄⳘⲞⲨⲚ Ⲉ ⲰⲎ ⲦⲒⲢ.   9
awadki ali bi nogmun e wee tir.

    awad-ki   ali   bi   nog-mun   e   wee tir
    Awad-ACC Ali   FUT   go-NEG   say   tell APPL3.IMP.2SG
    "Tell Awad, say: Ali will not go"

In ex. 9, *e* is part of a multi-verb construction with the semantically similar utterance verb *wee* "tell." The verbs *e* and *wee* are followed by *tir* "give (to 3rd person)" which in such a construction is interpreted as a grammatical morpheme marking the applicative. Armbruster considers *e wee tir* as a compound verb *eweetir*.[15] However, if we turn the statement in ex. 9 into a question as in ex. 10, we realize that the interrogative predication marker *te* will be inserted between the verbs *e* and *wee* which shows that they represent separable entities rather than a compound.

ⲀⲰⲀⲆⲔⲒ ⲀⲖⲒ ⲂⲒ ⲚⲞⲄⳘⲞⲨⲚ Ⲉ ⲦⲈ ⲰⲎ ⲦⲒⲆⲆⲒ?   10
awadki Ali bi nogmun e te wee tiddi?

    awad-ki   ali   bi   nog-mun   e   te   wee tir-r-i
    Awad-ACC Ali   FUT   go-NEG   say   PRED.Q tell APPL3-NEUT-1SG
    "Do I tell Awad, Ali will not go?"

The verb *e* also takes the negation suffix *-mun* as illustrated in ex. 11.

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15 ARMBRUSTER, *Dongolese Nubian: A Grammar,* §3847.

11   ⲁï ⲁⲱⲁⲁⲕⲓ ⲉⲙⲟⲩⲛ ⲉⲥⲙⲁⲛ̄ⲅⲓ ⲉⲣⲓ.
      ay awadki emun esmaangi eri.

      ay   awad-ki   e-mun   esmaan-gi   e-r-i
      1SG Awad-ACC say-NEG Osmaan-ACC say-NEUT-1SG
      "I don't say Awad, I say Osman. / I don't mean Awad, I mean Osman"

In contrast to Massenbach's findings, as mentioned in the previous paragraph, the verb *e* takes the past participle suffix *-el* as illustrated in ex. 12.

12   ⲓⲛ ⲧⲉ ⲟⲅⲓⳝ ⲁï ⲁⲱⲁⲁⲕⲓ ⲟⲩⲯⲟⲩⲣⲙⲟⲩⲛ ⲉⲣⲉⲗ?
      in te ogij ay awadki unyurmun erel?

      in   te   ogij ay awad-ki   unyur-mun er-el
      this PRED.Q man 1SG Awad-ACC know-NEG say-PTC.PF
      "Is this the man who said: I do not know Awad?"

The verb *e* also takes the conditional suffix *-gi-r* (var. *-ki-r*) as in ex. 13.

13   ⲁï ⲟⲛ ⲁⲱⲁⲁⲕⲓ ⲛⲟⲅ ⲉⲅⲟⲅⲓⲣⲓ ⲃⲓ ⲙⲟ̄ⲛⲕⲟⲛ.
      ay on awadki nog egogiri bi moonkon.

      ay   on   awad-ki   nog   e-go-gi-r-i
      1SG EMP Awad-ACC go   say-PT1-COND-NEUT-1SG
      bi   moon-ko-n
      FUT refuse-PT1-2SG
      "If I had told Awad to go, he would have refused"

The verb *e* also takes the temporal clause marker *-gaal*, as illustrated in ex. 14.

14   ⲁï ⲃⲓ ⲛⲟⲅⲓⲣⲓ ⲉⲣⲓⲅⲁ̄ⲗ ⲁⲙⲃⲁ̄ⲃ ⲁïⲅⲓ ⲙⲓ̄ⲣⲕⲟⲛ.
      ay bi nogiri erigaal ambaab aygi miirkon.

      ay   bi   nog-ir-i   er-i-gaal   ambaab   ay-gi
      1SG FUT go-NEUT-1SG say-1SG-when my.father 1SG-ACC
      miir-ko-n
      prevent-PT1-3SG
      "When I said: I will go, my father prevented me"

We can conclude from this section that the transitive verb *e,* rendered as "say, tell," can be inflected for all persons in the neuter tense and the past tense in the preterite 1 and preterite 2 forms. It can also take modality markers, such as the negation suffix *-mun,* the aspectual suffix *-os* and the conditional suffix *-gi-r.* It can be used in various contexts with its full lexical meaning and behaves mostly like other ordinary verbs, as we have seen in exx. 1–14.

3. The use of *e* as a copular verb, rendered as "be"

According to Payne, a copula "is any morpheme (affix, particle, or verb) that joins, or 'couples' two nominal elements in a predicate nominal construction."[16] Before discussing the properties of the copular verb *e,* I provide first the following table 1 illustrating the use of the copular verb *e* with the nouns *kedegir* "assistant farmer," being a noun ending in a consonant, and *ewratti* "water wheel driver" being a noun ending in a vowel.

pers. pron.		meaning		meaning
ay	*kedegir eri*	I'm an ass. farmer	*ewratti eri*	I'm a w.w. driver
er	*kedegir-un*	you're an ass. farmer	*ewratti-n*	you're a w.w. driver
ter	*kedegir-un*	he's an ass. farmer	*ewratti-n*	he's a w.w. driver
ar	*kedegir-i-n*[17]	we're ass. farmers	*ewratti-nci-n*	we're w.w. drivers
ir	*kedegir-i-n*	you're ass. farmers	*ewratti-nci-n*	you're w.w. drivers
tir	*kedegir-i-n*	they're ass. farmers	*ewratti-nci-n*	they're w.w. drivers

Table 1. Two paradigms of *e* as copular verb

The copular verb *e* is glossed as "be" in all its forms.

ⲁ̈ⲓ ⲕⲉⲇⲉⲅⲓⲣ ⲉⲡⲓ.
ay kedegir eri.

15

    ay kedegir e-r-i
    1SG ass.farmer be-NEUT-1SG
    "I'm an assistant farmer"

---

16 PAYNE, *Describing Morphosyntax,* p. 114.
17 Less common: *ar kedegiri eru.*

16   ⲈⲢ ⲔⲈⲆⲈⲄⲒⲢⲞⲨⲚ.
      er kedegirun.

      er   kedegir-un
      2SG ass.farmer-be.2SG
      "You are an assistant farmer"

The above table and examples clearly show that *e* functions as a copula connecting a subject pronoun with a predicate nominal. In Arabic (the national language of the Sudan), for example, a zero copula is used in such constructions, e.g. *anā sowwāg* "I am a driver."

The copular verb *e* can be inflected for tense/person and number. In table 1 *e* is inflected for the neutral tense. However, only the 1st person singular form *eri* and with some speakers the 1st person plural form *eru* have the characteristics of a lexical verb, that is, *e* is inflected for tense/aspect, person and number and it is independent, rather than a suffix. The 2nd and 3rd person singular, by contrast, are marked by the invariable suffix *-un* when following a consonant or *-n* when following a vowel. All plural forms are marked by the suffix *-n*.[18] The irregularity of the inflection forms of the copular verbs is not surprising.[19] According to Payne "[c]opular verbs tend to be very irregular. That is, they often exhibit unusual conjugational patterns as compared to the more 'normal' verbs in the language."

The irregularity we see changes to the normal paradigm when the predicate nominal clause is subordinated. This is illustrated in ex. 17 by *e-n,* in exx. 18 and 19 by *e-r-u* and in ex. 20 by *e-r-an,* which are identical to the corresponding forms *e-n, e-r-u,* and *e-r-an* of the verb *e* "say, tell."

17   ⲈⲢ ⲔⲈⲆⲈⲄⲒⲢ ⲈⲚⲚ ⲒⲖⲖⲀⲢ ⲈⲔⲔⲒ ⲦⲈ̄ⲢⲒⲄⲒ ⲦⲒⲢⲔⲞⲢⲀⲚ.
      er kedegir enn illar ekki teerigi tirkoran.

      er   kedegir   e-n-n   illar
      2SG ass.farmer be-2SG[20]-GEN   because
      er-ki   teeri-gi   tir-ko-r-an
      2SG-ACC   seed-ACC give2-PT1-NEUT-1PL
      "They gave you the seeds because you are an assistant farmer"

18   ⲀⲢ ⲔⲈⲆⲈⲄⲢⲒ ⲈⲢⲞⲨⲚ ⲒⲖⲖⲀⲢ ⲀⲢⲄⲒ ⲦⲈ̄ⲢⲒⲄⲒ ⲆⲈ̄ⲚⲔⲞⲢⲀⲚ.
      ar kedegri[21] erun illar argi teerigi deenkoran.

---

18 All plural morphemes in Andaandi end in a vowel. The plural suffix *-i* is selected after consonants, the suffixes *-nci, -ri, -gu/ku* are selected after vowels.
19 Payne, *Describing Morphosyntax*, p. 117.
20 The 3SG form of the copular verb is same as the 2SG.
21 When the root is followed by a vowel-initial suffix the previous vowel is often dropped which results in a change of the syllable structure, e.g. *kedegir-i* is realized as *kedegri*.

> ar   kedegir-i   e-r-u-n   illar
> 1PL   ass.farmer-PL   be-NEUT-1PL-GEN   because
> ar-gi   teeri-gi   deen-ko-r-an
> 1PL-ACC   seed-ACC   give1-PT1-NEUT-3PL
> "They gave us the seed because we are assistant farmers"

ΙⲢ ⲈⲰⲢⲀⲦⲦΙⲚϬΙ ⲈⲢⲞⲨⲚ ΙⲖⲖⲀⲢ ΙⲢΓΙ ⲦⲈ̄ⲢΙΓΙ ⲦΙⲢΙⲢⲔⲞⲢⲀⲚ.   19
ir ewrattinci erun illar irgi teerigi tirirkoran.

> ir   ewratti-nci   e-r-u-n   illar
> 2PL   w.w.driver-PL   be-NEUT-2PL-GEN   because
> ir-gi   teeri-gi   tir-ir-ko-r-an
> 2PL-ACC   seed-ACC   give2-PL.OBJ-PT1-NEUT-2PL
> "They gave you the seed because you are water wheel drivers"

ⲦΙⲢ ⲈⲰⲢⲀⲦⲦΙⲚϬΙ ⲈⲢⲀⲚⲚ ΙⲖⲖⲀⲢ ⲦΙⲢΓΙ ⲦⲈ̄ⲢΙΓΙ ⲦΙⲢΙⲢⲔⲞⲢⲀⲚ.   20
tir ewrattinci erann illar tirgi teerigi tirirkoran.

> tir   ewratti-nci   e-r-an-n   illar
> 3PL   w.w.driver-PL   be-NEUT-3PL-GEN   because
> tir-gi   teeri-gi   tir-ir-ko-r-an
> 3PL-ACC   seed-ACC   give2-PL.OBJ-PT1-NEUT-3PL
> "They gave them the seed because they are water wheel drivers"

In the past tense (both preterite 1 and preterite 2), too, the inflected forms of the copular verb *e* are identical to the corresponding forms of the verb *e* "say, tell" as in exx. 21–4.

ⲀⲨ̈ ⲔⲈⲆⲈΓΙⲢ ⲈⲔⲞⲢΙ.   21
ay kedegir ekori.

> ay   kedegir   e-ko-r-i
> 1SG   ass.farmer   be-PT1-NEUT-1SG
> "I was an assistant farmer"

It goes by the same token for the other persons:

ⲀϨⲘⲈⲆ ⲔⲈⲆⲈΓΙⲢ ⲈⲔⲞⲚ.   22
ahmed kedegir ekon.

> ahmed   kedegir   e-ko-n
> Ahmed   ass.farmer   be-PT1-3SG
> "Ahmed was an assistant farmer"

23 ⲁϩⲘⲈⲀⲔⲞⲨ ⲔⲈⲀⲈⲄⲢⲒ ⲈⲔⲞⲢⲀⲚ.
ahmedku²² kedegri ekoran.

      ahmed-ku   kedegir-i   e-ko-r-an
      Ahmed-PL   ass.farmer-PL be-PT1-NEUT-3PL
      "Ahmed and companions were assistant farmers"

In a dependent clause *e* appears in the preterite 2 form, just like a "normal" verb, see ex. 24.

24 ⲁϩⲘⲈⲀ ⲔⲈⲀⲈⲄⲒⲢ ⲈⲤⲒⲚⲀⲞ Ⲁ̄ⲢⲦⲒⲢ Ⲁ̄ⲄⲔⲞⲚ.
ahmed kedegir esindo aartir aagkon.

      ahmed   kedegir   e-s-in-do   aarti-r   aag-ko-n
      Ahmed ass.farmer be-PT2-3SG-LOC island-LOC stay-PT1-3SG
      "When Ahmed was an assistant farmer he was staying on the island"

However, as Massenbach already points out, the copular verb *e* is not used to express the future tense; rather, another verb is used. This is the verb *an* "become, say" which is illustrated in ex. 25.

25 ⲀⲒ̈ ⲂⲒ ⲦⲞⲢⲂⲀⲀ ⲀⲚⲀⲒ.
ay bi torbal andi.

      ay   bi   torbal   an-d-i
      1SG   FUT   farmer   become-NEUT-1SG
      "I will become a farmer / I'm going to be a farmer"

Predicate adjectives (in attributive clauses) behave similar like predicate nominals. In fact, as Payne writes, "[p]redicate adjectives are seldom distinct structurally from predicate nominals."²³

The following table 2 shows that the copula behaves in attributive clauses in the same way as in the predicate nominal clauses. The copula is represented by the suffix *-n* in all forms, except for the 1st person singular, *eri*, where it is identical with the corresponding form of the verb *e* "say, tell." The copula *-n* after vowels, is realized as *-un* after consonants, e.g. *jagad-un*.

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22 When the plural marker *-gu* (after a sonorant, *-ku* after other consonants) is attached to person names it expresses an associative plural, e.g. *Ahmed-ku* "Ahmed and his companions."
23 PAYNE, *Describing Morphosyntax,* p. 120.

pers. pron.		meaning		meaning
ay	jagad eri	I'm weak	kombo eri	I'm strong
er	jagad-un	you're weak	kombo-n	you're strong
ter	jagad-un	he's weak	kombo-n	he's strong
ar[24]	jagad-i-n[17]	we're weak	kombo-ri-n	we're strong
ir	jagad-i-n	you're weak	kombo-ri-n	you're strong
tir	jagad-i-n	they're weak	kombo-ri-n	they're strong

Table 2. Two paradigms of predicate adjectives

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In subordinate attributive clauses, as in the nominal clauses, the regular forms of the verb *e* are used.

ⲁϨⲘⲈⲁ ⲋⲁⲅⲁⲁ ⲈⲚⲚ ⲓⲗⲗⲁⲣ ⲱⲁⲕⲕⲉⲕⲟⲣⲁⲛ.   26
ahmed jagad enn illar wakkekoran.

> ahmed   jagad   e-n-n   illar   wakke-ko-r-an
> Ahmed   weak be-NEUT.3SG-GEN because exclude-PT1-NEUT-3PL
> "They have excluded Ahmed because he is weak"

Also, the copular verb *e* is used for predicate locatives, i.e. locational clauses.

ⲁϊ ⲓⲛⲁⲟ ⲉⲣⲓ.   27
ay indo eri.

> ay   indo   e-r-i
> 1SG   here   be-NEUT-1SG
> "I'm here"

ⲁⲱⲁⲁ ⲓⲛⲁⲟⲛ.   28
awad indon.

> awad   indo-n
> Awad   here-be.3SG
> "Awad is here"

ⲧⲟⲣⲃⲁⲗⲓ Ⲙⲁⲛⲁⲟⲛ6ⲓⲛ.   29
torbali mandoncin.

> torbal-i   mando-nci-n
> farmer-PL   there-PL-be.3PL
> "The farmers are there"

---

24 The 1PL form *eru* is less common: *ar jagadi eru* "we are weak," *ar kombori eru* "we are strong."

30 ⲁϩⲙⲉⲁ ⲭⲁⲣⲧⲟⲩⲙⲟⲩⲛ.
    ahmed khartuumun.

    ahmed   khartuum-un
    Ahmed   Khartoum-be.3sg
    "Ahmed is in Khartoum"

We conclude from this section that the intransitive verb *e,* which is rendered in English by "be" is a copular verb that is used with predicate nominals, predicate adjectives, and predicate locatives. Only in the neuter tense the copula of the 1st person singular (and with some speakers also the 1st person plural) is inflected for tense, person, and number, the other forms of the copula are realized by the invariable suffixes, *-n* after vowels, *-un* after consonants.

4. The verb *e* in combination with *dol, maa,* or *daa*

When a lexical verb is followed by *e* plus *dol* "want," *e* plus *maa* "get tired," or *e* plus *daa* "exist, be present," these constructions express distinct modal and aspectual notions as I will show below. In these constructions, *e, dol, maa,* and *daa* lose some of their functional and semantic properties as lexical verbs. But they also acquire new functions and meanings as complex grammatical constructions. This process is known as grammaticalization.[25] In all these constructions *e* will be glossed as "say."

In contrast to Armbruster,[26] who considers *-e dol, -e maa,* and *e daa* as compound verbs, I rather conceive them as separate verbs comparable to multi-verb constructions, because these morphemes can be separated by the interrogative predication marker *te,* as illustrated in exx. 33, 39, 41, 46, and 47. So *-e dol, -e maa,* and *e daa* are discontinuous morphemes.

4.1. The complex morpheme -e dol
When the verb *e* is suffixed to an uninflected verb and followed by the inflected verb *dol* "want" this complex construction expresses an immediate or imminent future, which can be rendered by "to be about to do something." This is illustrated in the exx. 31 to 37.

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25 See Jakobi & El-Guzuuli, "Semantic Change and Heterosemy of Dongolawi *ed.*"
26 Armbruster, *Dongolese Nubian: A Grammar,* §4021.

ⲁⲓ ⲚⲞⲄⲈ ⲆⲞⲗⲗⲓ.   31
ay noge dolli.

    ay   nog-e   dol-l-i
    1SG   go-say   want-NEUT-1SG
    "I'm about to be going / I'm about to go / I'm going"   103

ⲁⲓ ⲒⲘⲂⲈⲗ ⲚⲞⲄⲈ ⲆⲞⲗⲗⲓ.
ay imbel noge dolli.   32

    ay   imbel   nog-e   dol-l-i
    1SG   stand   go-say   want-NEUT-1SG
    "I'm about to go." Lit: "I'm about to stand and be going"

ⲈⲢ ⲚⲞⲄⲈ ⲦⲈ ⲆⲞⲗⲓⲚ?
er noge te dolin?   33

    er   nog-e   te   dol-in
    2SG   go-say   PRED.Q   want-2SG
    "Are you about to go?"

ⲁⲓ ⲚⲞⲄⲈ ⲆⲞⲗⲔⲞⲢⲒ.   34
ay noge dolkori.

    ay   nog-e   dol-ko-r-i
    1SG   go-say   want-PT1-NEUT-1SG
    "I have been about to go / I was about to go"

ⲁⲢⲞⲨ ⲘⲀⲚ ⲔⲀⲦⲢⲈⲄⲒ ⲂⲞ̄ⲢⲔⲒⲢⲈ ⲆⲞⲗⲔⲞⲚ.   35
aru man katregi boorkire dolkon.

    aru   man   katre-gi   boor-kir-e   dol-ko-n
    rain   DEM   wall-ACC   fall-CAUS-say   want-PT1-3SG
    "Rain was about to cause that wall fall down"

ⲒⲚ ⲦⲈ ⲔⲀⲦⲢⲈ ⲁⲢⲞⲨ ⲂⲞ̄ⲢⲔⲒⲢⲈ ⲆⲞⲗⲤⲒⲚ?
in te katre aru boorkire dolsin?   36

    in   te   katre   aru   boor-kir-e   dol-s-in
    this   PRED.Q   wall   rain   fall-CAUS-say   want-PT2-3SG
    "Is this the wall that the rain was about to cause fall down?"

37   IN TЄ KⲀTⲢЄ BⲞ̄ⲢЄ ⲆOⲖЄⲖ?
      in te katre boore dolel?

        in   te   katre   boor-e   dol-el
        this   PRED.Q   wall   fall.down-say   want-PTC.PF
        "Is this the wall that was about to fall down?"

4.2. The complex morpheme -e maa

When the verb *e* is suffixed to an uninflected verb and followed by
the inflected verb *maa*, the complex morpheme *-e maa* expresses the
failure to do something or to be unable to do something, as illus-
trated in exx. 38–43.

38   ⲀЇ NOΓЄ MⲀ̄ⲢI.
      ay noge maari.

        ay   nog-e   maa-r-i
        1SG   go-say   get.tired-NEUT-1SG
        "I become unable to go / to walk / I fail to walk"

39   ЄⲢ NOΓЄ TЄ MⲀ̄N?
      er noge te maan.

        er   nog-e   te   maa-n
        1SG   go-say   PRED.Q   get.tired-2SG
        "Are you unable to go / to walk?"

40   OⲆⲆINΓЄⲆ KⲀⲖЄ MⲀ̄N.
      oddinged kale maan.

        oddi-n-ged   kal-e   maa-n
        sick-3SG-because   eat-say   get.tired-3SG
        "Because he is sick, he is unable to eat"

41   KⲀⲖЄ TЄ MⲀ̄ΓON?
      kale te maagon?

        kal -e   te   maa-go-n
        eat-say   PRED.Q   get.tired-PT1-3SG
        "Was he unable to eat?"

42   ⲀⲱⲀⲆ ⲀЇΓI NOΓOⲤ Є ⲱЄ̄ⲢЄ MⲀ̄ΓON.
      Awad aygi nogos e weere maagon.

> Awad ay-gi   nog-os e   wee-r-e   maa-go-n
> Awad 1SG-ACC   go-ASP2 say say-NEUT-say   get.tired-PT1-3SG
> "Awad was unable to say to me: Please go"

ⲁⲣ ⲃⲁ̄ⲥⲕⲓ ⲇⲟ̄ⲩ̄ⲣⲉ ⲙⲁ̄ⲅⲟⲣⲟⲩ. 43

ar baaski duure maagoru.

> ar   baas-ki   duur-e   maa-go-ru
> 1PL   bus-ACC   reach-say   get.tired-PT1-1PL
> "We were unable to reach the bus"

4.3. The complex grammatical morpheme *e daa*

When an inflected verb is followed by *e* plus the inflected verb *daa* this construction has the reading "suppose, believe, think," as illustrated in exx. 44–7.

ⲁⲓ̈ ⲁ2ⲙⲉⲇⲕⲓ ⲃⲓ ⲧⲁ̄ⲛ ⲉ ⲇⲁ̄ⲣⲓ. 44

ay ahmedki bi taan e daari.

> ay   ahmed-ki   bi   taa-n   e   daa-r-i
> 1SG Ahmed-ACC   FUT   come-3SG   say exist-NEUT-1SG
> "I suppose Ahmed will come"

ⲁⲓ̈ ⲁⲱⲁⲇⲕⲓ ⲛⲟⲅⲟⲥⲕⲟⲛ ⲉ ⲇⲁ̄ⲅⲟⲣⲓ. 45

ay awadki nogoskon e daagori.

> ay   awad-ki   nog-os-ko-n   e   daa-go-r-i
> 1SG Awad-ACC   go-ASP1-PT1-2SG   say exist-PT1-NEUT-1SG
> "I thought Awad went away"

ⲉⲣ ⲁⲱⲁⲇⲕⲓ ⲛⲟⲅⲟⲥⲕⲟⲛ ⲉ ⲧⲉ ⲇⲁ̄ⲅⲟⲛ? 46

er awadki nogoskon e te daagon?

> er   awad-ki   nog-os-ko-n   e   te   daa-go-n
> 1SG Awad-ACC   go-ASP1-PT1-2SG   say PRED.Q   exist-PT1-2SG
> "Did you think Awad went away?"

ⲉⲣ ⲕⲁⲇⲕⲓ ⲇⲁⲅⲁⲇⲟⲩⲛ ⲉ ⲧⲉ ⲇⲁ̄ⲅⲟⲛ? 47

er kajki jagadun e te daagon?

> er   kaj-ki   jagad-un   e   te   daa-go-n
> 1SG horse-ACC   weak-be.3SG   say PRED.Q   exist-PT1-3SG
> "Did you think the horse is weak?"

When *e* is suffixed to an uninflected verb and followed by the inflected forms of the verbs *dol* "want" and *maa* "get tired" this construction functions as a complex grammatical morpheme with the reading "to be about to do something" and "unable to do something," respectively.

When an inflected verb is followed by *e* and the inflected verb *daa* this construction turns into a complex grammatical construction with the reading "suppose, believe, think."

5. Conclusion

The transitive verb *e,* rendered as "say, tell," is used as an independent lexical verb that can be inflected for all persons in the present and past tenses. It can also take modality markers, the completive aspect marker, temporal clause marker, and the conditional. It can be used in various contexts with its full lexical meaning and in that it behaves like other lexical verbs. It should be pointed out, however, that *e* is not attested in the imperative and future form.

The verb *e,* rendered as "be," functions as a copular verb connecting two nominal elements in a predicate nominal construction, in a predicate adjective construction and in a predicate locative construction. The copular exhibits irregular forms of inflection in the neutral tense, where the 2nd and 3rd person forms are marked by the invariable suffix *-(u)n* and all the plural forms are marked by *-n.*

The verb *e* proves to be very productive as a grammatical morpheme in combination with the verbs *dol* "want," *maa* "get tired," or *daa* "exist, be present." These complex constructions express the notions of imminent future, failure, and supposition, respectively.

The examples discussed above are covering the described functions. However, while investigating the verb *e* I have discovered that it may have another function. When attaching to an inflected verb it appears to be used as a purpose clause marker. This function requires an in-depth study in the future.

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Focus Constructions in Kunuz Nubian

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1. Introduction

The study of focus constructions is not adequately done in Kunuz Nubian (henceforth ᴋɴ), a member of the Nile Nubian languages that include Fadicca, Mahas or Nobiin[1] and Dongolese[2] or Dongolawi. ᴋɴ, which is spoken in southern Egypt, is mutually intelligible with Dongolese, but not with Mahas or Fadicca.[3] It is unfortunate that the grammars of ᴋɴ do not include focus constructions.[4] In fact, there is no reference to – let alone the distinction between – information focus and contrastive focus in ᴋɴ. This is not surprising for "this distinction has often been neglected in language description."[5] Therefore, the present study is an attempt to fill this gap in ᴋɴ grammar.

This study aims to investigate constructions in which nominals are focused or highlighted.[6] It is argued that ᴋɴ, unlike Standard Arabic, does not have topicalization. Rather, it has two types of focus constructions, information focus and contrastive focus. The former type (cf. section 4.1) is triggered by context and depends on the constituent order variations permitted in ᴋɴ. ᴋɴ has basic ꜱᴏᴠ constituent order but the object can optionally be placed before the

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1 "Nobiin" is the name given to the Mahas or Fadicca varieties, cf. Wᴇʀɴᴇʀ, *Grammatik des Nobiin.*
2 "Dongolese" is the name that Armbruster uses in the title of his grammar.
3 Aʙᴅᴇʟ-Hᴀғɪᴢ, *A Reference Grammar of Kunuz Nubian,* p. 2.
4 Ibid. Focus constructions are not considered in Mᴀssᴇɴʙᴀᴄʜ's grammar, "Wörterbuch des nubischen Kunūzi-Dialektes mit einer grammatischen Einleitung." It was Angelika Jakobi who kindly drew my attention to this observation.
5 Cᴀʟʟɪᴇs, *Information Highlighting in Advanced Learner English,* p. 21.
6 Cf. section 4. .

subject: OSV (cf. section 3). Other than this, KN does not have the patterns available in a language like Standard Arabic (henceforth SA): VSO, SVO, OVS or VOS.[7] Since SA, which differentiates between topicalization and focus construction, has had an impact on the structure of Nubian languages, it might be hypothesized that KN has both topicalization and focus constructions. It will be argued that the OSV pattern in KN is an instance of information focus rather than topicalization. Another type of focus – contrastive focus – is initiated by such pragmatic factors as emphasis or contrast (section 4.2). This type is introduced by a constituent to which *–tera* or *–ma* is attached. The choice between these suffixes depends on whether the focused constituent is definite or indefinite. Thus this study attempts to answer the following questions.

1. Does KN have topicalization?
2. Can sentence constituents be focused?
3. Are there different types of focus construction?
4. How can these different types be characterized?
5. What is the source of focus markers in KN?

Most of the sentences used in this study are elicited from carefully selected informants in Dahmeet, an Egyptian Nubian village. The informants, being over sixty, are elderly Nubians whose competence in KN is unquestionable. The researcher himself is a native speaker of the language under study. The sentences produced by him have been checked against what native speaker informants say. The unverified statements or sentences of the researcher were discarded from the data. The study is expected to be descriptive, analytic and theory-neutral. However, it draws on the Hallidayan model concerning thematic structure and information structure.[8] Thus reference will occasionally be made to such concepts as theme/topic and rheme/comment on the one hand and given/new on the other. These are proven useful and instrumental in the analysis of focus constructions.

2. An overview of thematic structure and information structure

A sentence in traditional Prague School is organized or divided into two types: theme/topic and rheme/comment. The theme is what the sentence is about, whereas the rheme is what is said about the theme/topic.[9] Moreover, two more concepts are often brought in the discussion of information structure: old/given information and new information. As Baker puts it, "[t]he organization of the message into information units of given and new reflects the speak-

7   BAKIR, *Aspects of Clause Structure in Arabic,* pp. 10–12.
8   Cf. HALLIDAY, *An Introduction to Functional Grammar.*
9   BAKER, *In Other Words.*

er's sensitivity to the hearer's state of knowledge in the process of communication."[10] Halliday gives us a distinction of these concepts when he states that

> Given (or old) information is that knowledge which the speaker assumes to be in the consciousness of the addressee at the time of the utterance. So-called new information is what the speaker assumes he is introducing into the addressee's consciousness by what he says.[11]

Put simply, the old or given information is the part of information that is already known or shared between the participants, whereas the new information is the part the addressee does not know.

According to the traditional Prague School practices, old or given information is located in the theme position of the sentence and new information is found in the rheme part of the sentence. Thus the proponents of Prague School correlate theme with given information and rheme with new information. It was Halliday who drew our attention to the separation of thematic structure and information structure. He claims that theme is not necessarily associated with given information. Nor is rheme often correlated with new information. Halliday and Matthiessen clearly state their position when they say

> Given + New and Theme + Rheme are not the same thing. The Theme is what I, the speaker, choose to take as my point of departure. The Given is what you, the listener, already know about or have accessible to you. Theme + Rheme is speaker-oriented, whereas Given + New is listener-oriented.[12]

Whether the theme is associated with old or new information depends on the context. It is the participants who negotiate what to consider old or new information; for example, it is the context of the following sentence that determines the status of its constituent parts.

What did the dog do?		1a
The dog	*bit the cat.*	1b
Theme/Topic	Rheme/Comment	
Old/Given Information	New information	

10 Ibid., p. 145.
11 HALLIDAY, "Theme and Information in the English Clause," p. 30.
12 HALLIDAY & MATTHIESSEN, *An Introduction to Functional Grammar*, p. 93.

The determining context here is the question in 1a. Accordingly, in the 1b sentence *the dog* is the theme/topic that the addresser speaks about. This part is shared by the addresser and the addressee. Therefore, it constitutes old information. But *bit the cat,* which is the rheme or comment, provides the addressee with new information about *the dog.* Note that the part in the rheme position is new information that the addressee was unaware of.

Now suppose the context involves a question in which the speaker believes the hearer does not know what *bit the cat,* s/he would produce the sentence in such a way that the hearer will consider *the dog* as the new information.

2   *The dog*   *bit the cat.*
       Theme/Topic   Rheme/Comment
       New Information   Old/Given information

Thus the part of sentence *bit the dog* occupying the rheme/comment position is the shared or common information between the participants. In contrast, *the dog,* which is the thematized constituent, provides new information.

It should be noted that the context may force us to consider the whole sentence to be new information, if the question is formed in such a way that the speaker does not know anything about the incident.

3a   What happened?
3b   The dog   bit the cat.
        Theme   Rheme
        New information

Example 3b shows that the whole proposition constitutes new information. This discussion has given evidence that there is no one-to-one correspondence between theme and given information or between rheme and new information. Thus the concepts of thematic and information structure should be kept distinct.

3. Some basic facts of KN

KN is an SOV language.[13] The elements in the sentence carry suffixes that indicate their syntactic function, e.g. object.[14] However, its constituent order is not as free as that of SA.[15]

id	*buru-gi*	*jom-s-u*	(SOV)	4a
man	girl-ACC	hit-PST-3SG		
"The man hit the girl"				

buru-gi	*id*	*jom-s-u*	(OSV)	4b
girl-ACC	man	hit-PST-3SG		
"The man hit the girl"				

*jom-s-u	*id*	*buru-gi*	(VSO)	4c
hit-PST-3SG	man	girl-ACC		

*jom-s-u	*buru-gi*	*id*	(VOS)	4d
hit-PST-3SG	girl-ACC	man		

*id	*jom-s-u*	*buru-gi*	(SVO)	4e
man	hit-PST-3SG	girl-ACC		

*buru-gi	*jom-s-u*	*id*	(OVS)	4f
girl-ACC	hit-PST-3SG	man		

The sentences 4a–b have SOV and OSV orders, respectively. All the other sentences 4c–f involve a verb occurring in the non-final position. Thus KN is different from SA in that it has a stricter constituent order. SA allows all six constituent order patterns, whereas KN does not permit the patterns with the verb in the non-final position, VSO, VOS, SVO, and OVS.[16] A possible explanation for this semi-strict constituent order is that the verb in KN agrees not only with the subject but also with the object. Agreement with the subject is in person and number, as seen in 5.

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13 ABDEL-HAFIZ, *A Reference Grammar of Kunuz Nubian*, p. 201.
14 Note that the accusative suffix has phonologically conditioned allomorphs: *–ti* after alveolar stops, *–g(i)* after vowels and sonorants except /r/, *–ji* after a palatal stop, and *–ki* occurs in all other environments, cf. ibid., p. 92.
15 Abbreviations: * – ungrammatical; 1, 2, 3 – 1st, 2nd, 3rd person; ACC – accusative; CF – contrastive focus; COP – copula; DEF – definite; GEN – genitive; IF – information focus; INDF – indefinite; KN – Kunuz Nubian; LOC – locative; NEG – negative; NOM – nominative; OBJ – object; OSV – Object Subject Verb; OVS – Object Verb Subject; PL – plural; PLOBJ – plural object; PST – past; Q – question; REL – relative; SA – Standard Arabic; SBJ – subject; SVO – Subject Verb Object; VOS – Verb Object Subject; VSO – Verb Subject Object.
16 BAKIR, *Aspects of Clause Structure in Arabic*, pp. 10–12.

5a   *ay buru-gi jom-s-i*
1SG girl-ACC hit-PST-1SG
"I hit the girl"

5b   *ter buru-gi jom-s-u*
3SG girl-ACC hit-PST-3SG
"S/he hit the girl"

5c   *tir buru-gi jom-s-a*
3PL girl-ACC hit-PST-3PL
"They hit the girl"

The agreement of the verb with the object is in number only; a plural object cues agreement on the verb via the suffix *–ir*. The absence of the suffix on the verb indicates that the object is singular.

6a   *id buru-gi nal-s-u*
man girl-ACC see-PST-3SG
"The man saw the girl"

6b   *id buru-ii-gi nal-ir-s-u*
man girl-PL-ACC see-PLOBJ-PST-3SG
"The man saw the girls"

The nominals that cue agreement on the verb must precede the verb. This is why the only permissible patterns are verb-final: SOV and OSV. Note that the other four patterns involve a verb in the non-final position: VSO, VOS, SVO, and OVS.

4. Types of KN focus construction

Focusing is defined as a situation where "one particular discourse element is highlighted, foregrounded or simply given more prominence than other elements."[17] Two types of focus are recognized in KN, information focus and contrastive focus. The distinction between these two types is not clearly demarcated in the literature. In the words of Kiss, "[i]dentification focus [contrastive focus] and information focus are often mingled in language description, which leads to contradictory statements on focus."[18] However, Halliday defines information focus as "one kind of emphasis, that whereby the speaker marks out a part (which may be the whole) of a message block as that which he wishes to be interpreted as informative."[19]

17 CALLIES, *Information Highlighting in Advanced Learner English,* p. 20.
18 KISS, "Identification Focus Versus Information Focus," p. 245.
19 HALLIDAY, "Theme and Information in the English Clause," p. 204.

Lambrecht agrees with Halliday when he states that "the focus of the proposition expressed by a sentence in a given utterance context, is seen as the element of information whereby the presupposition and the assertion differ from each other."[20] As for contrastive focus, it is defined as "a subset of the set of contextually or situationally given elements for which the predicate phrase can potentially hold; it is identified as the exhaustive subset of this set for which the predicate phrase actually holds."[21] Callies gives a clearer distinction between these two concepts when he states that "[w]hile the information focus serves to introduce new information, identification focus [contrastive focus] has a contrastive value and singles out a candidate from a limited contextually given or inferable set of alternatives."[22]

4.1 Information focus

Information focus "serves to introduce new information."[23] In this section, information focus in KN will be tackled. This type of focus results as a response to a question. It is "a feature of context rather than of the language system."[24] As Baker states, "one can only decide which part of a message is new and what part is given within a linguistic or situational context."[25] This type of focus is triggered by pragmatic factors. In the words of Heine and Reh, it "manifests itself in answers to wh-questions."[26]

Mwamzandi argues that "cross-linguistic studies have shown that the felicity of sentences with non-canonical constituent order can often be explained if information structure is taken into consideration."[27] Thus the sentences that begin with an object are marked in KN. The object has occupied the front position in these sentences.

een	*buru-gi*	*kaa-r*	*wiil-gi*	*nal-s-u*	7a
woman	girl-ACC	house-LOC	yesterday-ACC	see-PST-3SG	
"The woman saw the girl at the house yesterday"					

buru-gi	*een*	*kaa-r*	*wiil-gi*	*nal-s-u*	7b
girl-ACC	woman	house-LOC	yesterday-ACC	see-PST-3SG	
"The woman saw the girl at the house yesterday"					

20 LAMBRECHT, *Information Structure and Sentence Form,* p. 207.
21 KISS, "Identification Focus versus Information Focus," p. 245.
22 CALLIES, *Information Highlighting in Advanced Learner English,* p. 21.
23 Ibid., p. 21.
24 BAKER, *In Other Words,* p. 145.
25 Ibid., p. 245.
26 HEINE & REH, *Grammaticalization and Reanalysis in African Languages,* p. 148.
27 MWAMZANDI, *Swahili Worder Order Choices,* p. vi.

The constituent *burugi* is the focus of 7b. In ᴋɴ there is a question that triggers the appearance of the focused constituent. Sentences like 7b can be a response to a question like 8.[28]

8   *nii-gi   een   kaa-r   wiil-gi   nal-maa?*
      who-ACC woman house-LOC yesterday-ACC see-Q.PST
      "Whom did the woman see at the house yesterday?"

Note that nominals can be focused in answer to a question about the place (as in 9a) or time (as in 9c).

9a   *saayer een   buru-gi wiil-gi   nal-maa?*
      where woman girl-ACC yesterday-ACC see-Q.PST
      "Where did the woman see the girl yesterday?"

9b   *kaa-r   een   buru-gi wiil-gi   nal-s-u*
      house-LOC woman girl-ACC yesterday-ACC see-PST-3SG
      "The woman saw the girl yesterday at the house"

9c   *sitaaki een   buru-gi kaa-r   nal-maa?*
      when woman-ACC girl-ACC house-LOC see-Q.PST
      "When did the woman see the girl at the house?"

9d   *wiil-gi   een   buru-gi kaa-r   nal-s-u*
      yesterday-ACC woman girl-ACC house-LOC see-PST-3SG
      "The woman saw the girl at the house yesterday"

In 9b, a locative nominal is focused, whereas in 9d a temporal element, marked by the accusative, is placed in the focus position. Thus it can safely be said that 9b is a response to 9a, whereas 9d is a response to 9c.

Note that the verb cannot be focused in ᴋɴ. Thus the verb in 7a cannot be focused as evidenced by the ungrammaticality of 10.

10   **nal-s-u   een   buru-gi kaa-r   wiil-gi*
      see-PST-3SG woman girl-ACC house-LOC yesterday-ACC

The evidence provided by 9b–d shows that the focused element occupies the position of the question word in the following way.

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28 We need to distinguish between clause-final *–maa* as in ex. 8 and *-ma* used in focus or copula constructions. The clause-final *–maa* is a question marker that appears with or without interrogative pronouns. It is used if reference is made to a past state or event. It is produced with a long vowel and a rising tone to signal its function as a question marker. In contrast, the copula *–ma,* which is clause-final, is used to refer to a present or past state and its vowel is short. Moreover, the contrastive suffix *-ma* is often associated with an indefinite clause-initial nominal; its vowel is not as long as that of the question marker.

niigi is replaced with an object
saayer is replaced with a nominal indicating place
sitaaki is replaced with a nominal indicating time

4.2 *Contrastive focus*

Contrastive focus "has a contrastive value and singles out a candidate from a limited contextually given or inferable set of alternatives."[29] Contrastive focus shows up whenever the information provided by the speaker is challenged or contradictory to, i.e. in contrast with some previously mentioned information. All African languages have strategies for focusing sentence elements.[30] The most common strategy in African languages is "the cleft construction. In clefts, the focused constituent is introduced by a copula and modified by a relative clause."[31]

Contrastive focus in KN is different from information focus in that it involves a suffix *–tera* attached to the focused constituent if it is definite, as in 12b-c.[32]

id	*buru-gi*	*kaa-r*	*wiil-gi*	*jom-s-u*	12a
man	girl-ACC	house-LOC	yesterday-ACC	hit-PST-3SG	

"The man hit the girl at the house yesterday"

id-tera	*buru-gi*	*kaa-r*	*wiil-gi*	*jom-s-u*	12b
man-CF.DEF	girl-ACC	house-LOC	yesterday-ACC	hit-PST-3SG	

"It was the man who hit the girl at the house yesterday"

id-tera	*buru-gi*	*kaa-r*	*wiil-gi*	*jom-el*	12c
man-CF.DEF	girl-ACC	house-LOC	yesterday-ACC	hit-REL.PST.SBJ	

"It was the man who hit the girl at the house yesterday"

Note that the word *id* "the man," which is subject in 12a, is focused in 12b-c, as indicated by the suffix *–tera*. Moreover, the sentences involving the focus marker *–tera* show that the focused constituent can occur with a main clause as in 12b or can be modified by a relative clause as in 12c, as indicated by the relative marker *–el,* which refers to a focused subject nominal. Sentences like 12b–c can be an emphatic response to a question seeking a definitive answer. Such questions involve the use of the interrogative contrastive suffix *–terre* attached to the question word *nii* "who" as in 13.

29 CALLIES, *Information Highlighting in Advanced Learner English,* p. 21.
30 ZELLER, "The Syntax of African Languages: a Review."
31 Ibid., p. 12.
32 Unlike Dongolawi, in which, this marker is pronounced as *tarran* with double *rr*, KN focus marker *–tera* has a single *r*. I would like to thank Angelika Jakobi for drawing my attention to this difference.

13   *nii-terre   buru-gi   kaa-r   wiil-gi   jom-maa?*
          who-CF.Q girl-ACC house-LOC yesterday-ACC hit-Q.PST
          "Who hit the girl at the house yesterday?"

The same sentence in 12b or 12c can be a response to a statement with which the speaker disagrees; it can be used as a correction to the statement, as in 14.

▸ Speaker A

14a   *een   buru-gi   kaa-r   wiil-gi   jom-s-u*
        woman girl-ACC house-LOC yesterday-ACC hit-PST-3SG
        "The woman hit the girl at the house yesterday"

▸ Speaker B

14b   *id-tera   buru-gi kaa-r   wiil-gi   jom-s-u*
        man-CF.DEF girl-ACC house-LOC yesterday-ACC hit-PST-3SG
        "It was the man who hit the girl at the house yesterday"

Note that without the interrogative contrastive suffix *–terre* in 15a, the response is not expected to involve contrastive focus, as attested in 15b.

15a   *nii buru-gi kaa-r   wiil-gi   jom-maa?*
        who girl-ACC house-LOC yesterday-ACC hit-Q.PST
        "Who hit the girl at the house yesterday?"

15b   *id buru-gi kaa-r   wiil-gi   jom-s-u*
        man girl-ACC house-LOC yesterday-ACC hit-PST-3SG
        "The man hit the girl at the house yesterday"

It is worth noting that if the element that occupies the contrastive focus position is object, the object is placed in the front position and the suffix *–tera* is attached to it. Such a sentence is a response to a question in which the question word *nii* has an accusative suffix and the interrogative contrastive suffix *–terre*.

16a   *nii-gi-terre   id   kaa-r   wiil-gi   jom-maa?*
        who -ACC-CF.Q man house-LOC yesterday-ACC hit-PST-3SG
        "Whom did the man hit at the house yesterday?"

16b   *buru-gi-tera   id   kaa-r   wiil-gi   jom-s-u /*
        girl-ACC-CF.DEF man house-LOC yesterday-ACC hit-PST-3SG
        jom-s-i-n
        hit-PST-3SG-REL.OBJ
        "It was the girl whom the man hit at the house yesterday"

Sentences like 16b show that the out-of-focus clause can be a main clause or a relative clause. It should be noted that the relative marker, i.e. *–n,* used here is not the same marker as *-el* used in 12c. The reason is that the focused constituent is object in 16c, whereas it is subject in 12c. Note that contrastive focusing is not restricted to the subject or object; nominals referring to an object, time or place can also be used. Thus the nominal *buru-gi, kaa-r,* or *wiil-gi* in 17a can be focused, as seen in 17b–d.

id	*buru-gi*	*dugu-gi*	*kaa-r*	*wiil-gi*	17a
man	girl-ACC	money-ACC	house-LOC	yesterday-ACC	

tir-s-u
give-PST-3SG
"The man gave money to the girl at the house yesterday"

buru-gi-tera	*id*	*dugu-gi*	*kaa-r*	*wiil-gi*	17b
girl-ACC-CF.DEF	man	money-ACC	house-LOC	yesterday-ACC	

tir-s-u /   *tir-s-i-n*
give-PST-3SG   give-PST-3SG-REL.OBJ
"It is the girl that the man gave the money at the house yesterday"

kaa-r-tera	*id*	*buru-gi*	*dugu-gi*	*wiil-gi*	17c
house-LOC-CF.DEF	man	girl-ACC	money-ACC	yesterday-ACC	

tir-s-u /   **tir-s-i-n*
give-PST-3SG   give-PST-3SG-REL
"It was at the house that the man gave the girl money yesterday"

wiil-gi-tera	*id*	*buru-gi*	*dugu-gi*	*kaa-r*	17d
yesterday-ACC-CF.DEF	man	girl-ACC	money-ACC	house-ACC	

tir-s-u /   **tir-s-i-n*
give-PST-3SG   give-PST-3SG-REL
"It was yesterday that the man gave the girl money at the house"

Sentences like 17b show that an indirect object can be focused. In such cases the out-of-focus clause can be a main clause or relative clause, which is indicated by the relative marker *–n* on the verb. In contrast, adverbials can be focused, as shown in 17c–d. However, they can only be modified by a main clause rather than a relative clause.

Even a pronoun, be it subject (as in 18b) or object (as in 18c), can be highlighted in KN. In such cases, the focus marker *–tera* is attached to the focused pronoun as in 18b and 18c.

18a *tir buru-gi jom-s-a*
   3PL girl-ACC hit-PST-3PL
   "They hit the girl"

18b *tir-tera buru-gi jom-s-a*
   3PL-CF.DEF girl-ACC hit-PST-3PL
   "It is they who hit the girl"

18c *tekki-tera tir jom-s-a*
   3SG.ACC-CF.DEF 3PL hit-PST-3PL
   "It is her that they hit."

It has been shown that sentences like 12b indicate that the focused nominal to which –*tera* is suffixed is definite. Definite nominals are unmarked in KN, whereas indefinite elements are marked with –*weer*.[33] The question is: can indefinite constituents be focused if emphasized or contrasted? In sentences like 19a, the subject is indefinite, as indicated by the suffix –*weer*.[34] This indefinite subject is focused in 19b.

19a *id-weer buru-gi kaa-r wiil-gi   jom-s-u*
   man-INDF girl-ACC house-LOC yesterday-ACC hit-PST-3SG
   "A man hit the girl at the house yesterday"

19b *id-ma   buru-gi kaa-r wiil-gi   jom-el*
   man-CF.INDF girl-ACC house-LOC yesterday-ACC hit-REL.PST.SBJ
   "It was a man who hit the girl at the house yesterday"

19c **id-ma   buru-gi kaa-r wiil-gi   jom-s-u*
   man-CF.INDF girl-ACC house-LOC yesterday-ACC hit-PST-3SG

Sentences like 19 show that the indefinite nominal *id-weer,* which is subject in 19a, is *ma*-focused in 19b. Moreover, sentences like 19b show that the out-of-focus clause is a relative clause, as evidenced by the relative morpheme –*el*. Note that the focused constituent with –*ma* cannot occur with a main clause, as evidenced by the ungrammaticality of 19c. It has been shown in sentences like 12 that –*tera* occurs with or without non-relative clauses. The type of focus used in 19b is a response to a question raised by a speaker who is enquiring about the identity of the doer, instigator or patient of an

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33 ABDEL-HAFIZ, *A Reference Grammar of Kunuz Nubian,* p. 101.
34 There is evidence that –*weer* is a suffix: the /w/ becomes [b] if preceded by a word ending in a bilabial sound (e.g. /m/ or /b/); for example, /kub-weer/, which may be glossed as "boat-INDF," becomes [*kub-beer*] and /kam-weer/ "camel-INDF" becomes [*kam-beer*]. This change does not occur if these sounds are separated by a word boundary as in /saab wel-gi acci-s-u/ "cat dog-ACC bite-PST-3SG" [*saab welgi accisu*] / *[*saab belgi accisu*].

action expressed by the verb. Thus a statement like 20a, which is challenging, can trigger an emphatic response, as seen in 20b.[35]

    saab-minu kowalli-gi   toog-el   20a
    cat-CF.NEG mirror-ACC broke-REL.PST.SBJ
    "It is not a cat that broke the mirror"

    saab-ma   kowalli-gi   toog-el   20b
    cat-CF.INDF mirror-ACC broke-REL.PST.SBJ
    "It was a cat that broke the mirror"

The response in 20b can also be appropriate if the speaker aims to correct a previous statement by another participant. In the following sentence, the speaker believes that *wel-weer* "a dog" was responsible for breaking the mirror.

    wel-weer kowalli-gi   toog-s-u   21
    dog-INDF mirror-ACC broke-PST-3SG
    "A dog broke the mirror"

The sentence 20b can also be suitable for correcting the situation addressed in 21 by highlighting the constituent *saab* "a cat." The focused element is something the speaker is not familiar with. Here s/he is not talking about a particular "cat." If a particular cat had been referred to, the speaker would have used the definite focus marker *–tera* as in 22.

    saab-tera   kowalli-gi   toog-el   22a
    cat-CF.DEF mirror-ACC broke-REL.PST.SBJ
    "It was the cat that broke the mirror"

    saab-tera   kowalli-gi   toog-s-u   22b
    cat-CF.DEF mirror-ACC break-PST-3SG
    "It was the cat that broke the mirror"

The *ma*-focused constituents are shown to be indefinite subjects, as in 19b and 20b. Is it possible to focus an indefinite direct object or indirect object? Sentences like 23b–c show that it is.[36]

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35 The suffix *–minu* that appears after the nominal *saab* in 20a is not a simple negation. Rather, it is a combination of negation and focus. It can be used with indefinite nominals, as attested in 20a, or definite nominals as in *id-ter-minu* which may be glossed as "man-CF.NEG."

36 Note that the asterisk (*) before an element within the brackets indicates that the sentence is ungrammatical if the element is present. The /r/ of the indefinite *weer* is deleted before the accusative suffix. It seems that the numeral *weer* "one" is the source of this suffix.

23a *id   buru-weer-gi   dugu-gi   kaa-r   wiil-gi*
man girl-INDF-ACC money-ACC house-ACC yesterday-ACC
tir-s-u
give-PST-3SG
"The man gave money to a girl at the house yesterday"

23b *dugu-(*gi)-ma*   *id   buru-weer-gi kaa-r*
money-ACC-CF.INDF man girl-INDF-ACC house-LOC
wiil-gi   *tir-s-i-n /*   **tir-s-u*
yesterday-ACC give-PST-3SG-REL.OBJ give-PST-3SG
"It was money that the man gave to a girl at the house yesterday."

23c *buru-(*gi)-ma*   *id   dugu-gi   kaa-r   wiil-gi*
girl-ACC-CF.INDF man money-ACC house-LOC yesterday-ACC
tir-s-i-n /   **tir-s-u*
give-PST-3SG-REL.OBJ give-PST-3SG
"It was a girl that the man gave money at the house yesterday."

Sentences like 23b show that a direct object can be focused, where-as sentences like 23c indicate that it is possible to focus an indirect object. In such cases, the direct or indirect object appears without the accusative suffix. This is in stark contrast to focus constructions with –*tera* as in 17b, in which the accusative suffix remains intact. This is probably due to the fact that sentences like 23b are essentially relative clauses, whereas *tera*-constructions have undergone a functional split process in which the out-of-focus relative clause is gradually turning into a main clause. Obviously, this reanalysis of a relative clause as a main clause has not applied to *ma*-constructions, as evidenced by the ungrammaticality of the *ma*-sentence 19c in which the out-of-focus clause is not a relative clause.

Unlike the contrastive construction with –*tera,* nominals other than subject, direct or indirect object cannot be focused with –*ma*. Nominals referring to place (as in 24a) or time (as in 24b) cannot co-occur with –*ma*. Nor can a personal pronoun in 24c be focused in such constructions.

24a **kaa-ma*   *id   buru-gi   wiil-gi*   *jom-el*
house-CF.INDF man girl-ACC   yesterday-ACC hit-REL.PST.SBJ

24b **wiil-ma*   *id   buru-gi   kaa-r*   *jom-el*
yesterday-CF.INDF man girl-ACC house-LOC   hit-REL.PST.SBJ

*ter-ma   buru-weer-gi   kaa-r   wiil-gi   24c
3SG-CF.INDF girl-INDF-ACC   house-LOC yesterday-ACC
nal-el
see-REL.PST.SBJ

Any attempt to *ma*-focus nominals other than a subject, direct ob-   123
ject or indirect object will turn out to be ungrammatical. In fact,
a focus construction with -*ma* involves only a relative clause, and
therefore focus is constrained by whether it is possible to extract
from the relative clause. In Nubian languages, only subjects and ob-
jects can be extracted, but adverbial phrases cannot.[37] Thus 24a and
24b are ungrammatical because an element other than the subject,
direct object or indirect object is focused. The ungrammaticality
of 24c, however, indicates the impossibility of attaching the focus
marker –*ma* to pronouns. It is quite possible to explain why –*ma* is
not compatible with personal pronouns.

The focus marker –*ma* is used with indefinite rather than defi-
nite elements (cf. section 4.3). In contrast, personal pronouns are se-
mantically definite because they refer to specific entities. Therefore,
they cannot be used with –*ma* in focus constructions.

4.3 *The focus suffixes –ma and –tera*
As has been shown, these two suffixes are associated with contras-
tive focus, –*ma* is used with an indefinite focused element, where-
as –*tera* is associated with definite elements. The two markers are
treated as suffixes because they are only used with nouns. They also
affect the phonological structure of the preceding word, e.g. *een*
"woman," *een-ma* "it is a woman," *een-tera* "it is the woman." One of
these suffixes, i.e. –*ma,* as is the case in many African languages, is
derived from a copula. Evidence for this claim is provided by copu-
lar constructions in KN, see ex. 25.

buru ašir   ma   25a
girl   beautiful COP
"The girl is beautiful"

buru-ii ašr-ii   ma   25b
girl-PL   beautiful-PL COP
"The girls are beautiful"

The fact that *ma* in these sentences accompanies definite nouns is
evidence that it is a copula rather than a focus marker. Moreover,

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37 I would like to thank Vincent W.J. van Gerven Oei for drawing my attention to this property
of Nubian relative clauses.

the focus marker –*ma* is often used with indefinite elements. As Heine and Reh argue, the process of turning the copula *ma* into the focus marker –*ma* starts when "the constituent preceding the copula introduced the new information, while the relative clause presented the presupposed, 'out-of-focus,' content of the sentence."[38] Heine and Reh have shown that in some African languages "both the desemanticized and the non-desemanticized units may coexist."[39] This is also the case in KN: both the copula *ma* and the focus marker –*ma* coexist. This can be explained if these elements are dealt with as being the result of functional split in which the copula *ma* was grammaticalized as a focus marker.[40]

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The other focus marker, –*tera,* is not derived from a copula. Rather, it is derived from the third person singular pronoun *ter* "he, she."

26a   *er   buru-gi   nal-s-u*
        2SG girl-ACC   see-PST-2SG
        "You saw the girl"

26b   *ter buru-gi   nal-s-u*
        3SG girl-ACC   see-PST-3SG
        "S/he saw the girl"

Reduplication may be a source of focus markers, for example, in Efik, a Niger-Kongo language of Nigeria, "a clause which expresses contrast is marked morphologically by partial reduplication of the verb stem."[41] Given this, it is more likely that the KN pronoun *ter* has developed into a focus marker via reduplication in situations where emphasis is required. Thus emphasis may have been achieved by repeating the pronoun *ter* twice as in 27.

27   *ter ter buru-gi nal-s-u   →   ter-tera   buru-gi nal-s-u*
        3SG 3SG girl-ACC see-PST-3SG   3SG-CF.DEF girl-ACC see-PST-3SG
        "It is s/he who saw the girl (lit. S/he, s/he saw the girl)"

This marker is then generalized in such a way that it was used after other elements, including other personal pronouns, e.g. *er* "you (2SG)," as seen in 28b.

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38 HEINE & REH, *Grammaticalization and Reanalysis in African Languages,* pp. 167–8.
39 Ibid., p. 36.
40 Note that it is not easy to distinguish between clitics and affixes in African languages (ibid., p. 33). Both the copula *ma* and the focus –*ma* occur with phrasal constituents. However, as the focus element is described with reference to indefinite nominals and may affect the phonological structure of the preceding word, it should be treated as a suffix.
41 Ibid., p. 454.

er	*buru-gi*	*nal-s-u*	28a

2SG girl-ACC see-PST-2SG

"You saw the girl."

er-tera	*buru-gi*	*nal-el /*	*nal-s-u*	28b

2SG-CF.DEF girl-ACC see-REL.PST.SBJ see-PST-2SG   125

"It is you who saw the girl."

Note that the comment or out-of-focus part of the sentence started as a relative clause, as evidenced by the relative marker *–el*. However, it has gradually gained the characteristics of non-relative clauses. This probably explains why the out-of-focus clause can be a relative clause or a subordinate clause.

4.5 Is there topicalization in KN?

Topicalization is defined as a device that is used to assign "greater prominence to the element concerned than it would have typically in an unmarked construction."[42] Such constructions are used to highlight a part of a sentence by placing it in the front position. The distinction between topicalization and focus is not often observed. For example, Khalil has treated topicalization and focus as the same construction that is subsumed under fronting.[43] Likewise, Salih treats topicalization as "a different type of focus."[44] Prince argues that sentences involving topicalization (as in 29a) and focus (as in 29b) are difficult to differentiate in English.[45]

Macadamia nuts I think they are called.	29a
Macadamia nuts I can't afford.	29b

However, Zeller has provided some clues with which topicalization can be identified in African languages.[46] He argues that the topic in these languages is marked "by means of left or right dislocation. Typically, the fronted or extraposed topic is picked up by a resumptive pronoun or pronominal clitic in the comment clause."[47]

Note that the constructions involving information focus in KN allow the fronting of object or time or place adjuncts, as attested in sentences like 9a–d. If the focused constituent in sentences like 30b were topicalized, it would be in the nominative case:

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42 HUDDLESTON, *Introduction to the Grammar of English,* p. 454.
43 KHALIL, *A Contrastive Grammar of English and Arabic.*
44 SALIH, *Aspects of Clause Structure in Standard Arabic,* p. 53.
45 PRINCE, "Topicalization, Focus-Movement, and Yiddish-Movement," p. 250.
46 ZELLER, "The Syntax of African Languages," p. 12.
47 Ibid.

30a   *buru id-gi   kaa-n-keel-lo   nal-s-u*
             girl   man-ACC house-GEN-beside-LOC   see-PST-3SG
             "The girl saw the man beside the house"

30b   *id-gi   buru kaa-n-keel-lo   nal-s-u*
             man-ACC girl   house-GEN-beside-LOC   see-PST-3SG
             "The girl saw the man beside the house"

30c   **id   buru kaa-n-keel-lo*   nal-s-u*
             man   girl   house-GEN-beside-LOC   see-PST-3SG

The fact that the focused element in sentences like 30b is in the accusative case indicates that it is not topicalized. In contrast, the sentence in 30c is not grammatical because the focused constituent has lost its accusative case marker which refers to its function in the sentence. Needless to say, the absence of any case marker on the focused constituent in 30c indicates that it is in the nominative case. The problem with sentences like 30c is that two consecutive constituents are unmarked for nominative case, which impedes proper identification of syntactic function.

Moreover, if the focused constituent (i.e. *id-gi*) in sentences like 30b were the result of topicalization, we would expect a resumptive pronoun in the comment clause. That this is not the case is borne out by sentences like 31.

31   **id-gi   buru tekki   kaa-n-keel-lo*   nal-s-u*
        man-ACC girl   3SG.ACC house-GEN-beside-LOC   see-PST-3SG

This sentence is ungrammatical because a resumptive pronoun (i.e. *tekki*) is left in the comment clause.

It is not possible to ignore the differences between information focus and contrastive focus. Let us derive both types from a single sentence like 32a:

32a   *buru id-gi   kaa-n-keel-lo   nal-s-u*
             girl   man-ACC house-GEN-beside-LOC   see-PST-3SG
             "The girl saw the man beside the house"

32b   ▸ Information Focus
             id-gi   buru kaa-n-keel-lo   nal-s-u
             man-ACC girl   house-GEN-beside-LOC   see-PST-3SG
             "The man the girl saw beside house"

▸ Contrastive Focus   32c
  id-gi-tera   *buru kaa-n-keel-lo*   *nal-s-u*
  man-ACC-CF.DEF girl house-GEN-beside-LOC see-PST-3SG
  "It is the man the girl saw beside house"

Note first that the focused constituent in 32b is in the accusative   127
case, whereas that of 32c has the suffix *–tera* attached to it. The con-
trastive focused constituent must be definite, cf. 32c. If the constitu-
ent is indefinite a different suffix, *–ma*, is attached to the indefinite
focused constituent. In contrast, the information focused constitu-
ent can be definite, as seen in 32b or indefinite, as in 33.

  id-weer-gi   *buru kaa-n-keel-lo*   *nal-s-u*   33
  man-INDF-ACC girl house-GEN-beside-LOC see-PST-3SG
  "The girl saw a man beside the house"

These types are triggered by different pragmatic factors: the sen-
tence involving information focus is a response to a question intro-
duced with an interrogative pronoun such as *nii-g, saayer* or *sitaaki.*

  nii-gi   *buru kaa-n-keel-lo*   *nal-maa?*   34
  who-ACC girl house-GEN-beside-LOC see-Q.PST
  "Whom did the girl see beside house?"

As for the sentence involving contrastive focus, it is the result of
emphasis or contrast.

  id-tera   (*een-ter minu*)   *buru kaa-n-keel-lo*   35
  man-CF.DEF woman-CF.INDF-not girl house-GEN-beside-LOC
  nal-s-u
  see-PST-3SG
  "It was a man (not a woman) that the girl saw beside the house."

4.6 Contrastive constructions and information structure

Cleft constructions (e.g. *it*-clefts and pseudo-clefts) have drawn the
attention of many linguists. Huddleston argues that "[t]he main se-
mantic function ascribed to clefts is a textual one. *It*-clefts 'highlight'
an element, viz. the postverbal NP."[48] Baker discusses such construc-
tions as being characterized by a predicated theme which "involves
using *it*-structure (also called cleft structure) to place an element
near the beginning of the clause."[49] For example, the constituent
placed after the copula is considered the new information, whereas

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48 HUDDLESTON, *Introduction to the Grammar of English,* pp. 466–7.
49 BAKER, *In Other Words,* p. 135.

the given information appears in the out-of-focus clause. Prince and Hedberg treat clefts as a heterogeneous group, each having a different information structure and function.[50] According to Delin and Oberlander, "[t]he clefted constituent bears new, often contrastive information, and the cleft clause bears known or old information (and as a result), may often be elided or simply deleted altogether."[51]

Focus constructions in KN can be discussed in terms of two concepts relating to information structure: old and new information. Old information involves what is already known to the hearer, whereas new information represents what is new to the hearer. Thus in sentences like 12b, repeated here for convenience.

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36   *id-tera   buru-gi kaa-r   wiil-gi   jom-s-u*
     man-CF.DEF girl-ACC house-LOC yesterday-ACC hit-PST-3SG
     "It was the man who hit the girl at the house yesterday"

The constituent *id-tera* is considered the new information. Note that KN prefers to place the heavier portion of the sentence at the end. By "heavier," we mean it contains more lexical items. In the words of Greenbaum and Quirk,

> Since the new information often needs to be stated more fully than the given (that is, with a longer, "heavier" structure), it is not unexpected that an organization principle which may be called end-weight comes into operation along with the principle of end-focus.[52]

In this construction the part that contains new information is lighter (i.e. contains one word) and occupies the front position in the sentence. In contrast, the second part, which is heavier and has more words, contains given information (*burugi id wiilgi jomsu*) and occupies the end-position. It might be argued that KN does not observe the End-Weight principle which states that the part of the sentence containing new information is expected to be heavier than the part that includes given information. As a result, the heavier part is to occupy the end position. In sentences like 36, it is the focused constituent, which is lighter, that takes up the front position. However, it is possible in KN to have the focused constituent moved to the end (i.e. pseudo-clefts) as in 37.

50 PRINCE, "A Comparison of WH-Clefts and *It*-Clefts in Discourse"; HEDBERG, *Discourse Pragmatics and Cleft Sentences in English.*
51 DELIN & OBERLANDER, "Syntactic Constraints on Discourse Structure," p. 468.
52 GREENBAUM & QUIRK, *Student's Grammar of the English Language*, p. 398.

buru-gi	wiil-gi	jom-el	id-tera	37a
girl-ACC	yesterday-ACC	hit-REL.PST.SBJ	man-CF.DEF	

"Who hit the girl yesterday is the man"

*buru-gi	wiil-gi	jom-s-u	id-tera	37b
girl-ACC	yesterday-ACC	hit-PST-3SG	man-CF.DEF	129

It is worth noting that the relative clause is irreplaceable if it occupies the theme position, as shown in 37b. Sentences like 37a are conceived of as involving identifying or contrastive themes.[53] In such a case the focused constituent occupies the end position, whereas the other part of the sentence occupies the theme position.

These sentences show that the Hallidayan position concerning the separation of thematic structure and the information structure is sound. Note that the Praguian School linguists drew a correlation between theme position and given information and between rheme position and new information. The sentences indicate that the cleft construction in KN involves an element with new information in the theme position and given information is in the rheme position. In contrast, the pseudo-cleft construction has the new information in the rheme position and the given information in the theme position.

Theme	Rheme			38a
New	Given			
id-tera	buru-gi	wiil-gi	jom-s-u	
man-CF.DEF	girl-ACC	yesterday-ACC	hit-PST-3SG	

"It is the man who hit the girl yesterday"

Theme			Rheme	38b
Given			New	
buru-gi	wiil-gi	jom-el	id-tera	
girl-ACC	yesterday-ACC	hit-REL.PST.SBJ	man-CF.DEF	

"Who hit the girl yesterday is the man"

5. Conclusion

This study's contribution lies in the fact it has tackled such neglected concepts as information focus and contrastive focus in KN. No reference has ever been made to them in KN studies before. It has been shown that KN, which does not have topicalization, has two types of focus, information focus and contrastive focus. Evidence is given concerning the difference between these two types. Information focus is shown to be the outcome of word order variation, whereas the

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53 BAKER, *In Other Words*, p. 136.

latter is morphologically expressed. Note that the contrastive focus is expressed by a suffix attached to the focused element: *–tera* if the element is definite and *–ma* if it is indefinite. These focus markers are derived from different sources: *–ma* is derived from copula *ma,* whereas *–tera* originates in the pronoun *ter*. This probably explains why these focus markers have different morphosyntactic properties. The out-of-focus clause is a relative clause if *–ma* is the focus marker. In contrast, this clause can be a relative or main clause if the focused constituent is marked with *–tera*. Moreover, the two constructions have different extraction/fronting properties: Moreover, the two types of focus construction differ as to the elements that can be focused: all nominals, adverbials, and pronouns can be *tera*-focused. In contrast, adverbials and pronouns are not *ma*-focused.

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Address and Reference Terms in Midob (Darfur Nubian)

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Abeer Bashir

1. Introduction

Address/reference terms and social honorifics are linguistic phenomena presumably found in most or all languages. Address terms are words and phrases used for addressing a person. They refer to the interlocutor and thus contain a strong element of deixis.[1] Reference terms, on the other hand, are terms that may be used to refer to a person or group of people who may or may not be co-present.[2] Address terms may also be used as reference terms, though the term of reference sometimes differs from the term of address, especially among some kinship terms. An example is the Midob reference term éé "mother" and the term of address màá or màákà.

The present paper is concerned with some of the address/reference terms in the Midob language, spoken in Al-Maalha in northern Darfur. These are personal names, endearment names, and kinship terms. Some of these terms are originally native (e.g. kinship terms and a few personal names), while others are borrowed from Arabic (e.g. most of the personal names and endearment names). The Islamization and Arabization process in many communities and languages of Sudan has also had an impact on the Midob language. Personal names, in particular, suggest good evidence for this impact since a number of phonological changes have occurred and hence have resulted in names which are said to be Midobized names. This is also true for endearment names whose formation is based on the Midobized names. Kinship terms, on contrary, are purely native names. They can be classified into two groups according to their function. There is a class of kinship terms, which are used both for address and reference, and another class of kinship terms with dis-

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[1] BRAUN, *Terms of Address*, p. 70
[2] CARL, "The Use of Relational Terms to Accomplish Interactional Business," p. 13.

tinct items for address and for reference. Each class has its unique linguistic form. The present paper describes these terms and their formation. Nicknames and titles are also used in Midob as address/reference terms; however, they are not addressed in this paper since they do not exhibit significant phonological changes.

The issue of address/reference terms involves a number of sociological and anthropological notions like power, solidarity, and social meaning. These notions are not considered in this paper.

In previous studies of Midob[3] no attempts have been made to cover the issue of address or reference terms in the language, either from a linguistic or from a sociolinguistic point of view. The present work is the first study to investigate this topic.[4]

The present paper is based on data collected by the author in Khartoum in several sessions and times during 2013 from two adult male speakers of the Kargedi dialect of Midob.[5] One of them works and lives in Khartoum and the other lives in Al-Maalha, but works in northern Kordofan, outside Al-Maalha, and often comes to Khartoum for short visits.

The paper is organized as follows: Section 1 is an introduction followed by section 2 providing a historical background on the Islamization and Arabization of Darfur. Section 3 deals with personal names, their types and the phonological changes that they encounter. The formation of endearment names and the phonological changes they show is the concern of Section 4. Section 5 accounts for the kinship terms. The paper concludes with a few remarks in section 6.

2. Historical background

Historically speaking, Islam has been introduced to the west of Sudan, namely, to the Darfur sultanate by its rulers. The founder of the Darfur sultanate was Suleiman Solong, a Fur of the Keira clan, who ruled c. 1650–80. Suleiman initiated the expansion of the Darfur state beyond Jebel Marra and created the multi-ethnic sultanate by subjugating other tribes to his rule. He is considered to be the introducer of Islam to the Fur Sultanate. He built mosques for his subjects, encouraged Islamic practices and employed immigrant holy men to provide religious services at the court.[6]

The expansion of the Darfur Sultanate and the new religion took place in association with a commercial and cultural movement, which was established with the Western Bilad al-Sudan (stretching

from the Wadai Sultanate to the Atlantic Ocean) during the eighteenth century.[7] The Islamization of the Darfur Sultanate, according to O'Fahey and Abu Salim,[8] has played an important role in establishing a more literate administrative system. This is because the bearers of literacy were the holy men (fugaraa) and consequently, the Arabic language admitted as the language of writing official letters.

Linguistically speaking, the processes of Islamization and Arabization have left their impact on many languages in Sudan, including Midob. The linguistic influence and effect vary, depending on the duration and shape of contact between these languages and Arabic. In the case of Darfur, Arabic was the official language to all Sultanate speakers, Fur and non-Fur. In Midob particularly, the contact with Arabic is said to have been intensified in recent years due to ever more effective contact of the average Midob person with Arabic through migration, education, travel, and modern media.[9] Of interest here is the impact of Islamization and Arabization on the Midob cultural system that has its effect on the naming of persons. According to the Midob informants, they change many of their native names into Arabic ones. In the nineteen century during the Anglo-Egyptian era they were obliged to change or translate their native names into Arabic names when they were asked to register their names in the civil record office for the reason of issuing birth certificates. The employees (who were mostly Arabic speakers) at the civil record offices found difficulties in pronouncing and writing down the Midob native names in Arabic script, so they asked the Midob person either to translate his/her name into Arabic or to adopt an Arabic name. The effect of this contact between Arabic and Midob is attested in the present paper, in the field of addressing behavior, where varieties of Arabic terms, are used as personal names and endearment names.

3. Personal names

The study of personal names is referred to as anthroponomy. According to Algeo,[10] cited by Agyekum,[11] anthroponomy is related to genealogy, sociology and anthropology and it deals with the study of proper names, including their forms and use. Some philosophers and linguists have characterized names in the absence of social contexts. They consider names as arbitrary labels that refer to certain

7   O'Fahey & Abu Salim, *Land in Dār Fūr*, p. 3.
8   Ibid., p. 22.
9   Werner, *Tìdn-áal*, p. 20.
10 Algeo, "Onomastics," pp. 727–29.
11 Agyekum, "The Sociolinguistics of Akan Personal Names," p. 207.

signified entries; therefore the signifier and the signified may not share certain intrinsic qualities. This characterization, however, asserts names as referential linguistic elements with no functional correlation with culture, which is not true for any languages.[12] The use of personal names in particular is dependent on culture and they are sometimes restricted or tabooed as forms of address.[13] In Midob, personal names are not arbitrary, but associated with their socio-cultural and ethno-pragmatic contexts, i.e. most of the Midob native names are occasional names given due to certain circumstances, or descriptive names given to describe a person's social status or physical shape. We discuss these names and their linguistic structure in the following section.

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3.1. Midob personal names

Personal names in Midob are of two types: Midob native names and Midobized/Arabic names.[14] Almost all Midob native names are descriptive names. A name may designate various meanings, such as describing the social status of the person, like being rich, generous or able to defeat difficulties. Other names may describe a person's physical appearance, like skin color. A person may also be given a circumstantial name, i.e. a name relevant to an occasion or event that occurs at or around the time of his/her birth.[15] Examples of these names and their morphological structures are illustrated in the following tables.[16]

Table 1. Names describing a person's social status

	name	analysis	gloss
1	óndìtè	óndì–tè camel-OWN	rich, lit. owner of a large herd of camels
2	kórmìtè	kórmì–tè watering.basin-OWN	rich, lit. owner of a big watering basin
3	kòráàrè	kòráàr–è young.cow-OWN	rich, lit. owner of young cows

We notice from table 1 that the term describing a person's social status takes the suffix –te/-de when the suffix is preceded by a vowel and –e when preceded by a consonant. The suffix renders the meaning of ownership of something good or something of a big amount.

12 RYMES, "Naming as Social Practice."
13 BRAUN, Terms of Address, p. 9.
14 WERNER, Tìdn-áal, p. 31.
15 AGYEKUM, "The Sociolinguistics of Akan Personal Names."
16 The abbreviations used in this paper are as follows: 1SG – first person singular; 1PL – first person plural; alv. – alveolar; bilab. – bilabial; C – consonant; dent. – dental; fric. – fricative; GEN – genitive; glott. – glottal; IMP – imperative; lab. – labial; lat. – lateral; liq. – liquid; LOC – locative, N – underspecified nasal; nas. – nasal, OWN – owner of; pal. – palatal; PRG – progressive; uvul. – uvular; V – vowel; vel. – velar; vd. – voiced; vl. – voiceless.

Names describing skin color are remarkably often used as personal names in Midob, as shown in table 2. In terms of word class, as Werner states,[17] they are derived adjectives where the suffix –(i)cc/–(i)ʃʃ is used to express less intensity. It seems to modify the primary adjective of color to mean "lighter." Werner contrasts this suffix (which he erroneously terms "infix") with the suffix of intensity –ucc: "Whereas the infix –úcc– denotes big, heavy, intense things, it seems that the infix –ícc– modifies the primary adjective to mean lighter, playful (yet intense) qualities."[18]

	name	analysis	gloss
1	kéʃʃí	kéélè + –(i)ʃʃ– > kéʃʃí red	person of lighter red skin
2	úccí	údí + –(i)cc– > úccí black	person of lighter black skin
3	áríccí	àddé + –(i)cc–> áríccí white	person of lighter white skin
4	ùùríccí	úúrí + –(i)cc–> ùùríccí brown	person of lighter brown skin

Table 2. Names describing a person's physical appearance

In table 2 above, the examples 1 to 3 encounter some changes after suffixing –(i)cc/–(i)ʃʃ. In ex. 1, the vowel length in the first syllable is reduced and the onset of the second syllable is deleted; in addition, the final vowel e changes to i. In ex. 2 the onset of the second syllable is deleted. In ex. 3 the geminated stop is weakened and reduced to r. Also, the final vowel e changes to i.

The circumstantial names, as shown in table 3, consist of a kinship name plus gàlò, which is a borrowed variant of the Arabic word ɣaali "dearest" where ɣ > g and i > o. Thus, when a close relative has died before the birth of a child, this child is given such a name.

	name	analysis	gloss
1	bágàlò	bá + gálò father	lost the dearest father
2	ábágàlò	ábá + gálò grandmother	lost the dearest grandmother
3	tízzígàlò	tízzí + gálò maternal uncle	lost the dearest maternal uncle

Table 3. Circumstantial names

3.2 Midobized Arabic personal names
After the Islamization and Arabization of many parts of Sudan, including Dar Fur, the Midob adopted Arabic/Islamic names, as

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17 WERNER, *Tìdn-áal,* p. 30.
18 Ibid., p. 31.

did many (non-Arab) Muslims in Sudan. Therefore, Midob males are given Sudanese Arabic names such as maħammad, ʔaħmad, ʔibrahiim, ʕusmaan, ʔishaag, and common compound names like ʕabdalla (ʕabd + ʕalla) and ʕabdalgaadir (ʕabd + ʕalgaadir). Equally, Arabic female names, such as faṭma/faṭna, mariam, and xadiiɟa have become common names among the Midob. The adoption of the Arabic or Islamic personal names to the Midob language system has caused these names to encounter, through time, some phonological changes. This historical process resulted in names which Werner regards as being "Midobized": "Of special interest are the Midobized Arabic names, as they open the window to phonological processes in the linguistic past."[19] A list of these names is provided in table 4.

Table 4. Midobized Arabic names

	Arabic/Islamic name	Midobized name
1	maħammad	mééd[20]
2	ħaamid	háámìd
3	faaṭna/faaṭma	pátné
4	zahara	saárá
5	xadiiɟa	kàɟɟá
6	madiina	pèdné
7	zeenab	sénábà
8	seleemaan	sèlèmán
9	ʔismaaiil	sìmaîin
10	ʔishaag	isáákà[21]
11	ʔibraahiim	pràhímì
12	ʕaʃʃa/ʕeeʃa	áʃʃà
13	ʕabdalla	àddállà
14	ʕabdalgaadir	àddàŋgáadìr
15	ʕabdalraħmaan	àddèràhmán

Structurally, as it can be seen in table 4, most Arabic names are polysyllabic, including compound names such as ʕabdalla (composed of ʕabd "slave" and ʕalla "God," lit., "the slave of God"). The phonological changes in the Midobized Arabic names apparently occur due to differences between the phoneme systems (consonants and vowels) of the two languages, and differences in the phonotactic characteristics of their consonants and vowels.[22]

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19 Ibid.
20 The initial m in mééd is devoiced in the speech of most Midob speakers. However, with some others the devoiced m is pre-pharyngealized to be ħmééd. The pronunciation of the name "Mohamed" with a pre-pharyngealized nasal ħm or a pre-nasalized pharyngeal ᵐħ is a common pronunciation for most Arabic speakers, especially nomads, who pronounce it as ħmmad or ᵐħummad, respectively.
21 The vowel i is devoiced.
22 Midob is a tone language while Arabic is a stress language. There may be differences in the borrowed names regarding tone and accent patterns; these differences will not be discussed here.

3.2.1 *Differences between the phoneme systems*

The consonant phoneme systems of Midob and Arabic are not sim-
ilar. The number of consonants in Midob is 21, whereas in Arabic
there are 30. There are 17 consonants shared between the two lan-
guages; these are b, t, d, ɟ, k, g, h, f, s, z, ʃ, m, n, l, r, w, y. There
are 4 consonants in Midob which do not exist in Arabic, p, c, ɲ, ŋ,
whereas Arabic has consonants not existing in Midob, ṭ, ḍ, q, ʔ, θ,
ð, ọ̈, ṣ, ẓ, x, ɣ, ħ, ʕ. The consonant phoneme systems of Midob and
Sudanese Arabic can be seen in table 5 and 6, respectively.

	bilab.	lab.-dent.	alv.	pal.	vel.	glott.
vl. stop	p		t	c	k	
vd. stop	b		d	ɟ	g	
vl. fric.		f	s	ʃ		h[24]
vd. fric.			z			
nas.	m		n	ɲ	ŋ	
lat.			l			
liq.			r			
glide	w			y		

Table 5. Midob consonant morphemes[23]

	bilab.	lab.-dent.	dent.	alv.	pal.	vel.	uvul.	phar.	glott.
vl. stop			t, ṭ			k	[q][26]		ʔ
vd. stop	b		d, ḍ		ɟ	g			
vl. fric.		f	[θ]	s, ṣ	ʃ	x		ħ	h
vd. fric.			[ð], [ọ̈]	z, [ẓ]		ɣ		ʕ	
nas.	m			n					
lat.				l, [ɫ]					
liq.				r					
glide	w				y				

Table 6. Sudanese Arabic phonemes[25]

23 Bashir, "Some Observations on the Phonology of Meidob."
24 In the two dialects of Meidob, Kargedi and Orti, [h] is very restricted in its distribution
since it appears only word-medially following another consonant. This sound seems to
disappear after the liquids [l, r], but it leaves a phonetic effect on the liquids and causes
them to become voiceless. So [l̥] and [r̥] are interpreted phonemically as /lh/, and /rh/; see
Werner, *Tìdn-áal*, p. 19, and Bashir, "Some Observations on the Phonology of Meidob," p.
38. However it has been observed that [h] is audible intervocalically in borrowed names like
pràhímì < ʔibrahiim while it is deleted in other names, e.g. zàhàrá < saara.
25 Bergman, *Spoken Sudanese Arabic*, p. 2.
26 Consonants in brackets are limited in their occurrence.

At first glance, the above tables show that Arabic has more conso-nants than Midob. The additional sounds, which are missing in Mi-dob, are the velarized ("emphatic") consonants ṭ, ḍ, ð̣, ð̣, ṣ, ẓ, the pharyngeal ħ and ʕ, and the velar x and ɣ. Arabic lacks the voiceless bilabial and palatal stops, p and c, and the palatal and velar nasals, ɲ and ŋ, which exist in Midob.

Considering the differences between the phoneme systems of Arabic and Midob, a number of phonological processes occur in Arabic names when they are adopted in the Midob language. Some sounds are deleted or replaced by other sounds because they are not members of the Midob consonant system, and some other sounds are changed to adapt to the new system. We discuss each process separately.

3.2.1.1 Deletion

The pharyngeal sound ʕ and the glottal stop ʔ are deleted (represent-ed by zero Ø in the table below) in the Midobized Arabic names, as seen in the following table.

Table 7. Deletion of ʔ and ʕ

	Arabic/Islamic name	Midobized name	change
1	ʔismaaiil	sìmaîn	ʔ > Ø
2	ʔishaag	ìsáákà[27]	ʔ > Ø
3	ʔibrahiim	pràhímì	ʔ > Ø
4	ʕaʃʃa/ʕeeʃa	áʃʃà	ʕ > Ø
5	ʕaddalla/ʕabdulaai	àddállà	ʕ > Ø
6	ʕabdalgaadir	àddàŋgáádìr	ʕ > Ø
7	ʕabdalraħmaan	àddéràhmáàn	ʕ > Ø

There are some names in which the pharyngeal and the glottal frica-tives ħ and h are deleted, as shown in table 8. The deletion in ex. 1 results in compensatory lengthening of the preceding vowel; the loss of a consonant is compensated for by lengthening the preced-ing vowel. In exx. 2 and 3 it causes vowel lengthening since there are two identical vowels separated by an intervocalic consonant. When this consonant is deleted, the first and second vowels are realized as long vowels.

Table 8. Vowel length and compensatory lengthening

	Arabic/Islamic name	Midobized name	change
1	maħmuud	màamúudì	Vħ > VV
2	maħammad / maħammed	maammed > mééd	VħV > VV
3	zahara	saárá	VhV > VV

27 The vowel i is devoiced.

3.2.1.2 Replacement

The velar fricative x and the voiceless pharyngeal fricative ħ are re-placed by the phonetically most similar consonants from the Midob phoneme system, i.e. x > k and ħ > h.

	Arabic/Islamic name	Midobized name	change
1	ħaamid	háámìd	ħ > h
2	ʔaħmad	áhmàd	ħ > h
3	xadiiɟa	kàɟɟá	x > k

The velarized Arabic sounds are replaced by their corresponding non-velarized ones. This is exemplified in faaṭna / faaṭma, where ṭ > t.

3.2.1.3 Consonant assimilation and gemination

In addition to the deletion of ʕ in the compound Arabic/Islamic name, like ʕabdallah, this name also exhibits the assimilation of b and d in the first part of the compound. This results in the emer-gence of a geminated dd.

	Arabic/Islamic name	Midobized name	change
1	ʕabdalla	àddállà	bd > dd
2	ʕabdalraħmaan	àddèràhmán	bd > dd, l > Ø
3	ʕabdalgaadir	àddàŋgáadìr	bd > dd, l > Ø

Table 10. Consonant assimilation and gemination

Unlike àddállà and àddèràhmán, the name àddàŋgáadìr in ex. 3 in table 10 encounters a nasal insertion in the second part of this compound. Recalling the genitive linker -N- which is productive-ly used in compound nouns in Midob, one might suggest that the speakers tend to Midobize some Arabic compound names by link-ing their compound parts with –N–, i.e. ʕabd + ʕalgaadir > ʕabd –N– ʕalgaadir > addaŋgaadir. The complexity of this modification is il-lustrated by the following phonological representation where the underlying form, rules, and surface form are represented.

Underlying form	/ʕabd + ʕalgaadir/
Glottal stop deletion	/àbd + àlgáadir/
Consonant assimilation	/àdd + àlgáadir/
/l/ deletion	/àddà + gáadìr/
Genitive rule	/àddà + N + gáadìr/
Homorganic nasal assimilation	/àddà + ŋgáadìr/
Surface form	[àddàŋgáadìr]

Table 11. Phonological derivation of àddàŋgáadir

3.2.2 Phonotactic differences

3.2.2.1 Consonantal change

In some Midobized names the initial consonants are exchanged for the corresponding voiceless ones. These changes are systematically triggered by the Midob phonotactic restrictions, which allow only voiceless obstruents in word-initial position. Compare the examples in table 12.

Table 12. Initial consonant devoicing

	Arabic/Islamic name	Midobized name	changes
1	faaṭna/faaṭma	pátné	f > p
2	madiina	pèdné	m > p
3	ʔibrahiim	pràhímì	b > p
4	zeenab	sénábà	z > s
5	zahara	sáárá	z > s

3.2.2.2 Vowel reduction

The Midobized Arabic/Islamic names also undergo changes involving vowels. These changes are revealed by contrasting the vowel systems of the two languages. Both Midob and Sudanese Arabic have nearly the same vowel qualities (short and long) except for the central vowel /ə/ which is missing in Arabic. The Midob vowel system in table 13 is adopted from Bashir.[28] Table 14 of Sudanese Arabic vowels is based on the description of Sudanese Arabic vowels in Bergman.[29]

Table 13. Midob vowels

	front	central	back
high	i, iː		u, uː
mid	e, eː	ə, əː	o, oː
low		a, aː	

Table 14. Sudanese Arabic vowels

	front	central	back
high	i, iː		u, uː
mid	e, eː		o, oː
low		a, aː	

Long vowels in the Arabic/Islamic names are reduced to short vowels in the Midobized names, as seen in table 15.

Table 15. Vowel reduction

	Arabic/Islamic name	Midobized name	changes
1	faaṭna/faaṭma	pátné	aa > a
2	ʔibraahiim	pràhímì	aa > a, ii > i

28 Bashir, "Some Observations on the Phonology of Meidob," p. 43.
29 Bergman, *Spoken Sudanese Arabic*, pp. 6–7.

	Arabic/Islamic name	Midobized name	changes
3	zeenab	sénábà	ee > e
4	haliima	hàlímì	ii > i
5	madiina	pèdné	ii > Ø

The vowel reduction may also affect a whole syllable. This is so far
attested in one example: xadiiɟa > kàɟɟá.

3.2.2.3 Vowel quality change
The vowel quality of these names may also change, as seen in table
16.

	Arabic/Islamic name	Midobized name	changes
1	faaṭna/faaṭma	pátné	aa > a
2	madiina	pèdné	a > e
3	haliima	hàlímì	a > i

Table 16. Vowel
quality change

3.2.2.4 Addition of a Final Vowel
A few Midobized names with final consonants take an additional
vowel. There is no reason justifying the addition of the final vowel
in these names, though names like sìmáîn and háámìd also exist.

	Arabic/Islamic name	Midobized name	changes
1	ʔibrahiim	pràhímì	+ i
2	kaltuum	kàltúmì	+ i
3	maħmuud	màámúùdì	+ i
4	zeenab	sénábà	+ a

Table 17. Addition of
a final vowel

Of special interest here is the name maħammad "Mohamed" which
is Midobized as ʰm̥ééd with an initial pre-pharyngealized voiceless
bilabial nasal.[30] Unlike other names, the name ʰm̥ééd encounters a
number of phonological processes that are manifested in a num-
ber of underlying representations and rules, as shown in table 18.
First, the intervocalic voiceless pharyngeal fricative ħ is replaced by
a glottal fricative, then elided, but it spreads its voiceless feature on
the preceding nasal which becomes a pre-pharyngealized devoiced
nasal. Second, the long vowel of the first syllable is shortened and
the long consonant sequence of the nasal /mm/ is reduced to one
member. This yields the form /ʰm̥ámàd/ with the identical sequence
of CVCV; accordingly, a syllable deletion occurs. A compensatory
lengthening applies due to this deletion and a vowel change also oc-
curs. This can be illustrated in the following derivation in table 18.

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30 See fn. 20.

Table 18.
Phonological
represent-
ation of
ʰm̥ééd/
m̥ééd

Underlying form	/maħammad/
Replacement	/màhámmàd/
Elision	/màámmàd/
Pharyngealization	/ʰmàámmàd/
Nasal devoicing	/ʰm̥àámmàd
Vowel shorting	/ʰm̥ámmàd/
Consonant deletion	/ʰm̥ámàd/
Syllable deletion (haplology)	/ʰm̥ád/
Compensatory lengthening and vowel change	/ʰm̥ééd/
Surface form	[ʰm̥ééd] or [m̥ééd]

4. Endearment Names

Endearments are names that imply intimacy. Friends and sweet-hearts use them in addressing each other, as do parents to their children.[31] Terms of endearment names are often defined by their context and function rather than by formal or semantic characteristics and function.[32] In Midob however they, in addition to the context and function, have formal characteristics. They are used especially among family members, peers and close friends. A person is commonly given an endearment name during his childhood and when (s)he grows up this name is no longer used. Generally, it is difficult to draw a line between endearment names and nicknames, but in Midob endearment names are derived from Midobized personal names and have a special and distinctive structure and use. Examples are listed in table 19.

Table 19.
Endearment
names

	Arabic/Islamic name	Midobized name	endearment name
1	seleemaan	sə̀lə̀máàn	sə̀lmàànó/sə̀lmí
2	ʕusmaan	ìsmáàn	ìsmáánó
3	ʔaadam	áàdàm	áádàmó
4	faatna/faatma	pèdné	pèdnó
5	ʕeeʃa/ʕaʃʃa	áʃʃà	àʃʃó
6	ʔishaag	ìsáákà	ìsààkó
7	ʔibraahiim	pràhímì	pèrhó
8	ħaliima	hàlímì	hàlló/hàllóókà
9	kaltuum	kàltúmà	kàttó
10	zeenab	sénábà	sénábó
11	ʕabdalla	àddállà	ábùdó/àbdó/àddíllì
12	ʕabdalgaadir	àddà̀ŋgádir	àbùdó/àbdó
13	ʕabdalraħmaan	àddèràhmáàn	àbùdó/àbdó
14	xadiiɟa	kàɟɟá	kúɟɟá

31 Mashiri, "Terms of Address in Shona," p. 102.
32 Braun, Terms of Address, p. 10.

	Arabic/Islamic name	Midobized name	endearment name
15	ʔismaaʕiil	sìmaîn	sìmáásí
16	ʔaħmad	áhmàd	àhmóokà
17	ʔabbakar	àbbákàr	àbbàkóorà
18	maħammad	méèd	mékkà
19	ħaamid	hámìd	hámíkkà
20	zahara	sáárá/sááráh	sáárákkì
21	ħawwa	háwwa/háwwàh	háwwákkì

It is observable from the examples in table 19 that Midob speakers follow a certain strategy to form the endearment names. This strategy is based on suffixing –ó, –à, –í, –kà or –kì to the Midobized personal name. These suffixes are heard with specific tonal accents, as can be seen from the tone marked on them. However, their role and effect on the preceding tones is ignored here. For some names suffixing –ó and –à is made by replacement, i.e. they replace the final vowel of the Midobized personal name. Attaching an endearment suffix for some other names, however, results in a number of phonological changes in the names they are attached to. This can be illustrated as follows.

4.1 Replacement
In some names the suffixes –ó and –à replace the final vowel of the Midobized personal name.

	Midobized name	endearment name
1	pèdné	pèdnó
2	áʃʃà	àʃʃó
3	ìsáàkà	ìsààkó
4	sénábà	sénábó
5	mààmúúdì	mààmúúdà

Table 20. Addition of a final vowel

4.2 Shortening
Some names are shortened, i.e. their syllable number is reduced after the addition of the endearment suffix.

	Midobized name	endearment name
1	pràhímì	pèrhó
2	hàlímì	hàlló
3	kàltúmà	kàttó
4	sèlèmaán	sèlmí

Table 21. Shortening of endearment names

The shortening may also affect part of a compound name. The names in table 22 are reduced to retain only the first part of the compound name which receives the endearment suffix.

Table 22. Shortening of endearment compound names

	Midobized name	endearment name
1	àddállà	àbdó[34]
2	àddàŋgádir	àbdó
3	àddèràhmáàn	àbdó

4.3 Gemination

Some names take the suffix –kà/–kì. After the addition of these suffixes a complete assimilation occurs. These are often names which end with a non-sonorant consonant following a short vowel. This latter assimilates completely to the initial consonant of the suffix –kà/–kì and together they form a geminated consonant.

Table 23. Gemination in endearment names

	Midobized name	endearment name
1	méèd	mékkà
2	hámìd	hàmíkkà
3	saáráh	sáarákkì
4	háwwàh	háwwákkì

4.4 Internal Sound Change

There are some Midobized personal names attesting a change to their internal sounds, i.e. an internal vowel or consonant changes into another sound.

Table 24. Internal sound change of endearment names

	Midobized name	endearment name	changes
1	kàɟɟá	kúɟɟá	a > u
2	sìmaîin	sìmáásí	n > s

A few Midobized names are attested with two endearment markers.

Table 25. Double marking on endearment names

	Midobized name	endearment name
1	áhmàd	àhmóókà
2	àbbákàr	àbbàkóórà
3	hàlímì	hàllóókà

In addition to the suffixes –ka and –a, the names in table 25 take the vowel –oo which replaces the final vowel of the Midobized name. Replacing the final vowel of a personal name by –oo or –uu is also a

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33   ábùdó is a variant of àbdó. Sudanese Arabic speakers use ʕabdu/ʕabdo as a productive endearment name for all compound nouns whose first part is ʕabd, such as ʕabdalla. In Midob the endearment àddíllì is also used for àddállà, where the suffix –i replaces the final vowel. Also the medial vowel a changes to i.

productive strategy in Sudanese Arabic to form endearment names. For instance, ʕabiir > ʕabboora and faaṭma > faṭṭuuma.[34]

In addition to endearment personal names, the Midob also use endearment forms for kinship terms like únúʃí "my son." When parents want to express their endearment to or intimacy with their son or daughter, they tend to use the corresponding endearment terms úmbèèdì "my (male) slave," úndòòd "my (female) slave." These terms do not have negative connotations when addressed to children, on the contrary, it is most popular for parents to use them rather than other terms, as they express the parents' intimacy to their children, most importantly when giving advice.

5. Kinship terms

Kinship terms, according to their part of speech, are nouns that reflect blood relations among family members (e.g. mother, father, brother and sister) as well as relations to in-laws. Kinship terms, as Mashiri[35] notes, reflect cultural concepts and practices.

Unlike personal names and endearment names, kinship terms in Midob are native nouns, i.e. they are not borrowed from Arabic. They are used widely since they constitute an integral part of the address and reference system in the language. Some terms can function both as terms of reference and as terms of address, e.g., únúʃí "my son." Some other terms, however have distinct address and reference forms. For example, the noun for "elder brother/sister" is used in two forms, édí, as reference and édá as address.

In terms of function, kinship terms in Midob, thus, can be classified into two types: Type (A) Kinship address/reference terms, which include terms that are used for both reference and address, type (B) Kinship address and kinship reference terms. This class comprises terms of reference as distinguished from the terms of address. We discuss the two types in the following sections.

5.1 Kinship address/reference terms
In Midob some kinship nouns are used both for addressing and/or referring to the people whom they denote. Examples of these nouns are in table 26.

	Kinship address/reference term	gloss
1	ábà	grandmother
2	éénúʃí/ééníʃí	brother

Table 26. Kinship address and reference terms

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34 In the derivation of ʕabiir > ʕabboora and faaṭma > faṭṭuuma a gemination of the second consonant occurs. Also in faaṭma > faṭṭuuma the long vowel of the first syllable is reduced in the endearment name.
35 Mashiri, "Terms of Address in Shona."

	Kinship address/reference term	gloss
3	ééʃí	sister

Most of the terms are complex nouns. Some are possessive noun phrases: they begin in u-N- which is a possessive prefix composed of the person marker u[36] referring to the first-person singular and the genitive marker -N-,[37] as illustrated by the following examples.

Table 27. Possessive kinship address/reference terms

	Kinship address/ reference term	morphological analysis	gloss
1	úmbèskà[39]	ú–N–pèskà	my younger brother/sister
2	únúʃí	ú–N–úʃí	my son

Some possessive noun phrases are composed of noun–N–noun, i.e. two nouns connected with the genitive marker -N-. These possessive noun phrases are shown in table 28.

Table 28. Possessive kinship address/reference terms

	Kinship address/ reference term	morphological analysis	gloss
1	éénúʃí	éé–N–úʃí	brother, lit., mother's son
2	páánúʃí	páá–N–úʃí	brother, lit., father's son
3	éŋéʃí/éŋŋéʃí	éé–N–ééʃí[40]	maternal aunt, lit., mother's sister
4	ásnúʃí	ássí–N–úʃí	grandson/daughter from daughter, lit., daughter's son
5	kánnúʃí	kád–N–úʃí	grandson/daughter from son, lit., son's son
6	éénùʃínúʃí	éé–N–úʃí–N–úʃí	nephew, lit., mother's son's/ daughter's son
7	éénùʃnássí	éé–N–úʃí–N–ássí	niece, lit., mother's son's/ daughter's daughter
8	ánɟínúʃí	ánɟí–N–úʃí	cousin, lit., paternal uncle's son
9	ánɟínássí	ánɟí–N–ássí	cousin, lit., paternal uncle's daughter
10	áɲɲínúʃí	áɲɲí–N–úʃí	cousin, lit., paternal aunt's son
11	áɲɲínássí	áɲɲí–N–ássí	cousin lit., paternal aunt's daughter

36 The marker for first-person in Midob is əy. The vowels ə and u usually alternate as free variants in the Kargedi dialect of Midob.

37 The genitive marker -N- variously appears as n, m, ŋ, and ɲ as a result of a place of assimilation process.

38 The term ə́nné is also used as address terms for "younger brother."

39 Because there is no velar sound in this compound, it is not clear, yet, why -N- changes to ŋ.

	Kinship address/ reference term	morphological analysis	gloss
12	tízzínúʃí	tízzí–N–úʃí	cousin, lit., maternal uncle's son
13	tízzínássí	tízzí–N–ássí	cousin, lit., maternal uncle's daughter
14	éŋéʃínúʃí	éŋéʃí–N–úʃí	cousin, lit., maternal aunt's son
15	éŋéʃínássí	éŋéʃí–N–ássí	cousin, lit., maternal aunt's daughter

5.2 Kinship reference terms and kinship address terms

In this type of kinship term often there is a kinship address term corresponding to a kinship reference one. For instance, édádí is used as an address form corresponding to the reference terms éénùʃínúʃí and éénùʃnássí "nephew" and "niece," respectively. Similarly, únúʃí "my son" is the address term for úʃí "son," ássí "daughter," ásnúʃí "grandson from daughter," and kánnúʃí "grandson from son."

Most of the kinship address terms are not derived possessive forms of their corresponding reference terms, as explained above. They are rather formed by replacing the final vowel –í of the reference name by the suffix –á. This is illustrated in table 29.

	Kinship reference term	Kinship address term	gloss
1	édí	édá	elder brother/sister or male/female cousin
2	úbbí	úbbá	grandfather
3	tízzí/tíɟɟí	tízzá/tííɟá	maternal uncle
4	éŋéʃí	éŋéʃá	maternal aunt
5	ánɟí	ánɟá	paternal uncle
6	ánɲí	ánɲá	paternal aunt
7	ánɟínuʃí	édá	cousin, paternal uncle's son
8	ánɟínassí	édá	cousin, paternal uncle's daughter
9	ánɲiínuʃí	édá	cousin, paternal aunt's son
10	ánɲínássí	édá	cousin, paternal aunt's daughter
11	tízzínúʃí	édá	cousin, maternal uncle's son
12	tízzínássí	édá	cousin, maternal uncle's daughter
13	éŋéʃínúʃí	édá	cousin, maternal aunt's son
14	éŋéʃnássí	édá	cousin, maternal aunt's daughter

Table 29. Kinship reference and kinship address terms

The suffix –á also shows up with names whose final vowel is not –i. For example, the terms "father" and "mother" become páá > àbbá and éé > màá respectively. It is clear then that the suffix –á is a marker for most kinship terms in Midob. This marker has been also attested by Jakobi in a comparative study on Nubian kinship terms.[40] She refers to this suffix as relational suffix marking kinship terms and a few other terms expressing close social relationship, e.g. "friend" and "master." In Midob, however, the suffix –á marks the kinship address term and distinguishes it from the corresponding reference term. According to this, and unlike some other Nubian languages, the distinction between kinship terms of reference and kinship terms of address cannot be ignored in Midob. Compare the following examples.

- Address term
  úbbá   áá-dè   íír-gì   ə́ntém
  grandfather 1PL-LOC   story-ACC   make.us.IMP
  "My grandfather, tell us a story."

- Reference term
  ə́y ə́ə́n   úbbí-n   əd-dè   sə́ə́ríbà
  1SG 1SG.GEN grandfather-GEN house-LOC   go.PRG.1SG
  "I am going to my grandfather's house."

The terms pèssì "younger brother/sister" and màá "mother" are also attested in other kinship terms, úmbèskà and mǎkká, respectively.[41] These variants appear with the suffix –ka.[42] This is an endearment suffix, as it is illustrated in section 4, but it can also be used here in address forms since the notion of close relationship and intimacy is involved in both kinship and endearment.

6. Conclusion

This paper focuses on the structure and the formation of personal names, endearment names and kinship terms, used as address and reference terms in Midob. Most personal names and endearment names are borrowed from Arabic. Therefore, their formation reflects a number of phonological processes. In personal names the difference between the phoneme systems (consonants and vowels) of Midob and Arabic, and the differences in phoneme distribution

40 JAKOBI, "Nubian kinship terms."
41 See fn. 39.
42 The term úm–bèskà is also compound with the possessive prefix un- "my." The nasal of this prefix assimilates to the point of articulation of the following bilabial stop and is therefore realized as m.

in the two languages triggers these phonological changes. The consonantal changes include deletion, replacement, gemination, and word-initial consonant devoicing. The processes resulting from differences between the two vowel systems involve vowel quantity reduction, vowel quality change, and the addition of a final vowel. Endearment names exhibit similar changes.

Unlike personal names and endearment names, kinship terms are purely native names. They are classified into two classes according to their function. Lexical items in one class are used both as reference and address terms. In the other class the lexical items differ when used as address terms or reference terms. Most of the kinship terms of the latter class are marked by the suffix –á/–à which replaces the final vowel –i of the reference term. This suffix marks close social relationship in some other Nubian languages, as Jakobi notes. In Midob, however, it marks the kinship address terms.

This paper has not been concerned with anthropological notions related to the Midob address/reference terms such as power, solidarity, and social meaning.

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The Consonant System of Abu Jinuk (Kordofan Nubian)

Waleed Alshareef

1. Introduction

Abu Jinuk is a Kordofan Nubian language mainly spoken in the northwestern Nuba Mountains of Sudan. Kordofan Nubian is a branch of the Nubian language family. According to Rilly,[1] Nubian belongs to the northern East Sudanic subgroup which is part of the East Sudanic branch of the Nilo-Saharan phylum.

According to the Sultan of the Abu Jinuk tribe, the population in 2010 was 5,896 of whom 3,556 speakers live in the Nuba Mountains and 2,340 are scattered in different towns of Sudan.[2] According to the informants, the people call themselves and their language [ḏɛkla] meaning "the great grandfather." The Arabic term "Abu Jinuk," by which they are known in linguistic literature, is the name of their mountain. By the non-Arab neighboring groups, the Abu Jinuk people are called [ɛlɛk], which means "the explorers."

Abu Jinuk is an undescribed language. No linguistic studies have been devoted to the phonology of this language. Therefore, examining the consonant system of Abu Jinuk is thought to be the first linguistic investigation of this language. However, a few phonetic and phonological sketches of closely related Kordofan Nubian languages have been carried out by Ibrahim and Huttenga, Alaki and Norton, and Hellwig and Schneider-Blum. These studies establish the phonological system of Tagle,[3] Kadaru-Kurtala,[4] and Tabaq,[5] respectively. The consonant systems of these genetically closely re-

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1 Rilly, *Le méroïtique et sa famille linguistique.*
2 Personal communication, summer 2013.
3 Tagle is a Kordofan Nubian language which is spoken on the Jibaal as Sitta, the six hills, in the northeastern part of the Nuba Mountains. The other five related dialects are Kafir, Kadaru, Kurtala, Kuldaji, and Dabatna. See Ibrahim & Huttenga, "The Phoneme System of Tagle, a Kordofan Nubian Language," p. 99.
4 Alaki & Norton, "Kadaru and Kurtala Phonemes."
5 Hellwig & Schneider-Blum, "Tabaq: In a State of Flux." Tabaq is spoken in the western part of the Nuba Mountains.

lated languages share several characteristics. These shared features and the specific features in which the consonant systems deviate from each other will be addressed in section 5. However, Tabaq will not be included in the comparison since its consonant system is only cursorily described by Hellwig and Schneider-Blum, as their article is mainly devoted to the vowel system.

The main aim of the present study is to provide a basic description of the consonant system of the Abu Jinuk language, i.e. to identify the consonantal phonemes and their allophones. The identification of phonemes and allophones is tested by establishing minimal pairs, i.e. pairs of lexemes which only differ in one phonological feature. Moreover, investigating the distribution of the consonants in word-initial, word-final, and intervocalic position gives additional evidence of their phonemic status.

The present study is based on more than 300 words collected by myself during the years 2013 and 2014 in Khartoum, Sudan. The data were elicited from two native speakers of Abu Jinuk, Salih Ali, 65 and Himeidan Azrag, 66 years old. The elicited words were recorded and transferred into the computer as audio files and finally transcribed. The present paper is the beginning of a research project which will be continued at the University of Cologne.

The paper will be organized as follows. In section 2 the consonant inventory is addressed. In section 3 the focus is on the consonant system. The consonant sequences are considered in section 4. In section 5 we will compare the similarities and differences between the consonant systems of Abu Jinuk and those of Tagle and Kadaru-Kur-

Figure 1. Location of Abu Jinuk (Monika Feinen, Institute of African Studies, University of Cologne, 2012)
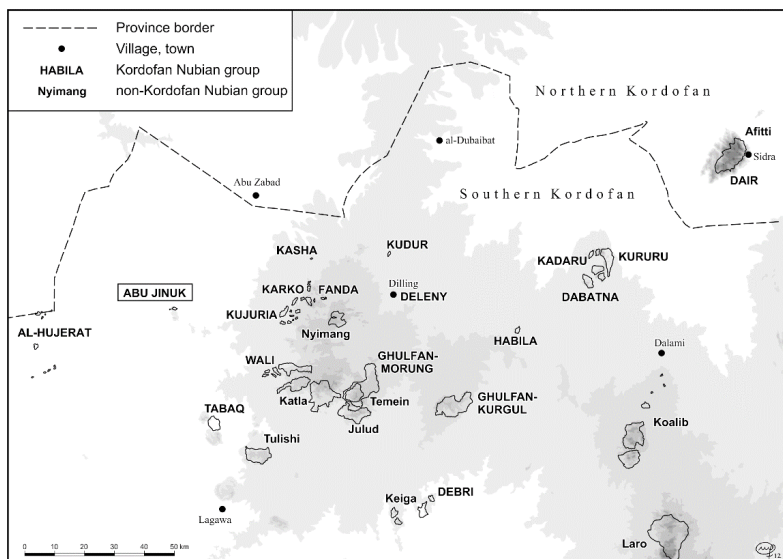
tala. The findings of the current study and suggestions for future studies are summarized in section 6.

2. The consonant inventory

Abu Jinuk has 26 consonants. They may be divided into two major classes, obstruents and sonorants. The former class includes stops and fricatives and the latter includes nasals and approximants (consisting of liquids and glides).

Obstruents are classified into three groups: stops, fricatives and affricates. In Abu Jinuk, in the class of obstruents there are only stops and fricatives. The stops are voiceless and voiced. The group of voiceless stops includes the dental [t̪], the retroflex [ṭ], the labialized retroflex [ṭʷ], the velar [k], and the labialized velar [kʷ]. The group of voiced stops comprises the bilabial [b], the dental [d̪], the retroflex [ḍ], the labialized retroflex [ḍʷ], the palatal [ɟ], the velar [g], and the labialized velar [gʷ]. The group of fricatives comprises only three consonants: the labiodental [f], the palatal [ʃ], and the glottal [h].

Sonorants include nasals, approximants, and vowels. The group of nasal consonants in Abu Jinuk comprises the bilabial [m], the alveolar [n], the palatal [ɲ], the velar [ŋ], and the labialized velar [ŋʷ]. Approximants comprise liquids and glides. The former includes the alveolar trill [r], the retroflex [ɽ], the alveolar [l],and the velarized [ɫ]. The latter is represented by the bilabial glide [w] and the palatal glide [j]. All these consonants are listed in table 1 below according to their place and manner of articulation.[6]

		lab.	lab.-dent.	dent.	alv.	retr.	pal.	vel.	glott.
stop	vl			t̪		ṭ, ṭʷ		k, kʷ	
	vd	b		d̪		ḍ, ḍʷ	ɟ	g, gʷ	
fric.	vl		f				ʃ		h
nasal	vd	m			n		ɲ	ŋ, ŋʷ	
liquid	vd				r	ɽ			
lateral	vd				l, ɫ				
glide	vd	w					j		

Table 1. Consonant inventory

Table 1 shows that the consonant inventory is characterized by eight places of articulation: labial, labiodental, dental, alveolar, retroflex, palatal, velar, and glottal. The table illustrates all the consonantal

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6 Abbreviations: ADJ– adjective; alv.– alveolar; Ar.– Arabic; dent. – dental; fric. – fricative; glott. – glottal; inter-voc. – intervocalic; lab. – labial; lab.-dent. – labiodental; pal. – palatal; PL – plural; retr. – retroflex; vd. – voiced; vel. – velar; vl. – voiceless; w.-final – word-final; w.-initial – word-initial.

sounds that can be heard in the language. However, not all of these sounds are phonemes in the language. To decide whether these sounds are phonemic, we have to check them in different positions of words. Moreover, the minimal pair criterion will be applied in order to give further evidence of the phonemic status of the consonants in table 1.

3. The consonant system

Having described the consonant inventory, we now turn to the question whether all consonants have phonemic status, i.e. the aim is to identify the phonemes and their allophones. The phonemic distinctions are checked via the distribution of consonants within a word and, perhaps more importantly, through the criterion of minimal pairs. Phonemes, according to Crystal,[7] are the smallest units in the sound system of a language which are established on the grounds that substitution of one for the other can cause a change in meaning. In English, for instance, the two sounds /f/ and /v/ are considered to be phonemes because they contrast in identical environment in words like, *fat* and *vat,* or *fine* and *vine*. The property of contrast is, thus, the crucial principle that is used to establish phonemes in a language.

Allophones, on the other hand, are sets of sounds that do not change the meaning of a word; they are all very similar to another and they occur in phonetic contexts different from one another. For example, the phoneme /l/ in English has two allophones, namely the "clear" [l] (as in *lead*) and the "dark" [ɫ][8] (as in *feel*). Unlike phonemes, however, substituting the clear [l], for example, for the dark [ɫ] does not create a difference in meaning, i.e. [l] and [ɫ] do not contrast. Allophones are thus predictable in their distribution and they must not overlap.

Phonemic distinctions in a language are checked via pairs of words called minimal pairs. Minimal pairs are two words which differ in meaning when only one sound is changed, enabling linguists to determine whether the sounds belong to different phonemes. For example, the contrast between *bat* and *pat* would establish /b/ and /p/ as different phonemes in English. Finding a minimal pair or near minimal pair for two sounds constitutes a proof that the sounds in question must belong to different phonemes.

3.1. *Distribution of consonants in a word*

Not all consonants may occur in any position of an Abu Jinuk word. Rather there are restrictions on their distribution. The data in table

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7   Crystal, *An Encyclopedic Dictionary of Language and Languages*, p. 298.
8   The technical linguistic term for this consonant is "velarized liquid."

2 shows the distribution of the consonants in word-initial, intervocalic and word-final position. A broken dash indicates that the consonant is not attested in that position. The consonants are organized according to the manner and place of articulation.

	word-initial	gloss	inter-vocalic	gloss	word-final	gloss
t̪	t̪ɛɛ	girl	ʊt̪ɪ	water	–	
t	tiʃa	five	koto	man	–	
tʷ	tʷaa	frog	–		–	
k	kut̪u	knee	ikʊ	fire	–	
kʷ	kʷaɟɛ	meat	–		–	
b	bɛlɛ	sesame	ʊbɛ	fish PL	ɪd̪ɪnd̪ab	guest
d̪	d̪ʊld̪ʊ	tooth	d̪ɪgɪd̪ʊ	gingiva	–	
d	d̪oo	throat	kod̪o	anus	–	
dʷ	dʷajdʷaj	type of tree	–		–	
ɟ	ɟaɬad̪ʊ	type of porridge	t̪ɪɟʊ	oil	–	
g	gotʊ	big	kogad̪ʊ	foot	–	
gʷ	gʷat̪ɛ	big PL	–		–	
f	faa	summer	gʊfʊ	type of tree (Ar. ğimmayz)	–	
ʃ	ʃalmɛ	beard	baʃɛ	harvest	–	
h	hɔkɛ	knife	–		–	
m	–		kumʊ	leg	t̪ɪt̪am	pigeon
n	–		ʃʊnɛ	fingernail PL	biin	strong
ɲ	–		kuɲʊ	face	kut̪aɲ	type of tree
ŋ	–		ɪŋɪlɛ	needle	t̪at̪aŋ	type of pot
l	–		kʊlʊ	stick	d̪ɛɛl	leopard
ɬ	–		kaɬad̪d̪a	seven	–	
r	–		arɛ	rain	ir	sea
ɾ	–		kaɾʊ	lizard	–	
w	walgɛ	hunter	ɪwʊ	tail	aw	grand-mother
j	–		kʊjɪd̪ʊ	bone	dʷajdʷaj	type of tree

The word dʷajdʷaj in table 2 is a reduplicated form, i.e. the root dʷaj is repeated. Due to this reduplication process, the labialized stop [dʷ] in the second part of the word is not considered to be an intervocalic consonant. Accordingly, we exclude it from the group of consonants that are admitted in intervocalic position.

Despite being part of the consonant inventory, the labialized velar [ŋʷ] is not included in tables 2 and 3 due to the fact that unlike all examples in table 2, [ŋʷ] is only attested in compound nouns as documented, for instance, in kʊlʊŋʷaʃɛ "*asiida* plate."[9] Its occurrence is triggered by the genitive marker /n/ which adopts the place of articulation of the following consonant and causes it to become voiced. For this reason the compound noun kʊlʊ–n–kʷaʃɛ is realized as kʊlʊŋʷaʃɛ.

Table 3 summarizes the distribution of consonants in word-initial, intervocalic, and word-final position. The plus indicates the presence of a consonant in a certain position, and the minus indicates the absence of a consonant in that position.

Table 3. Distribution of consonants

	word-initial	intervocalic	word-final
t̪	+	+	−
t	+	+	−
tʷ	+	−	−
k	+	+	−
kʷ	+	−	−
b	+	+	+
d̪	+	+	−
d	+	+	−
dʷ	+	−	−
ɟ	+	+	−
g	+	+	−
gʷ	+	−	−
f	+	+	−
ʃ	+	+	−
h	+	−	−
m	−	+	+
n	−	+	+
ɲ	−	+	+
ŋ	−	+	+
l	−	+	+
ɬ	−	+	−
r	−	+	+
ɾ	−	+	−
w	+	+	+
j	−	+	+

Tables 2 and 3 show that except for the labialized stops [tʷ, kʷ, dʷ, gʷ] and the fricative [h], all the consonants are admitted in intervocalic position. The nasals [m, n, ɲ, ŋ], the liquids [l, r] and [ɾ],

9   *Asiida* is the Arabic term for a thick porridge made from the flour of sorghum or millet.

and the glide [j] do not occur word-initially. One noteworthy feature in Abu Jinuk is that sonorant consonants, with the exception of the glide [w], tend not to appear in the word-initial position, whereas obstruents (stops and fricatives) are admitted in that position. The word-final position is most frequently occupied by sonorants (vowels, nasals, and liquids). However, vowels are more frequent than nasals and liquids in that position. The only consonants that are admitted in all positions within the word are the stop [b] and glide [w].

Two sounds are said to be in complementary distribution when the environment in which they occur is mutually exclusive, i.e. their environment is never the same. It appears from the distribution of consonants in tables 2 and 3 that [f] and [h] are in complementary distribution. Before the half-open back vowel [ɔ] and the nearly closed back vowel [ʊ], word-initial /f/ is realized as voiceless glottal fricative [h], e.g. hɔkɛ "knife," hʊʊ "tree." Elsewhere, it is realized as voiceless labiodental fricative [f], e.g. fɛɟɛ "forest," faa "summer," fɪgɪɟʊ "liver," and gufʊ "type of tree." Since [f] is more frequent, we may conclude that /f/ is considered to be the phoneme and it has two allophones as follows:

/f/ → [h] / __ [ɔ] and [ʊ], otherwise [f]

The stops [ʈ, k, ɖ, g] may be labialized, as attested in ʈʷaa "frog," kʷaɟɛ "meat," iʃʊnɖʷa̰ʈɛ "hand front" and gʷa̰ʈɛ "big PL," respectively. The labialized [ɖʷ] in the word iʃʊnɖʷa̰ʈɛ is provoked by the genitive marker /n/, that is, after /n/ the voiceless labialized obstruent [ʈʷ] is realized as voiced labialized [ɖʷ]. The same is true for the voiceless [kʷ] that is realized as voiced [ŋʷ], as attested in kʊlʊŋʷaʃɛ "asiida plate," as mentioned above. The phonemic status of these labialized obstruents, however, is problematic and requires more investigation, because the question whether they should be analyzed as sequences of phonemes or as one phoneme remains unanswered.

The distribution of the retroflex flap [ɽ] is very restricted. It only occurs in intervocalic position. This sound seems to be a realization of the consonant sequence /lɖ/. For example, kalɖʊ [kaɽʊ] "lizard," kɔlɖʊ [kɔɽʊ] "eye," ɪlɖʊ [ɪɽʊ] "woman." Since the occurrence of this sound is predictable and its distribution is restricted, it is not considered as a phoneme.

The velarized liquid [ɫ] is attested in two words in the available data. It is found only in the intervocalic position preceded and followed by the open vowel [a], e.g. kaɫaɖɖa "seven," ɟaɫaɖʊ "type of porridge." Due to its predictable occurrence, we consider [ɫ] as an allophone of /l/. More data is needed in order to check the allophonic status of [ɫ].

Despite being attested in intervocalic and word-final positions, the palatal glide [j] is not established as a phoneme. That is due to its predictable occurrence. In the available data, the glide [j] occurs in a specific environment where the low front vowel [a] or the nearly closed back vowel [ʊ] is followed by the high front vowel [ɪ], for instance, aɪʈʊ [ajɪʈʊ] "cheek" and kʊɪɖʊ [kʊjɪɖʊ] "bone."

The bilabial glide [w] is attested word-initially in words like wɛɛɖa "nine," walgɛ "hunter," and wʊlɛ "near." It is also found in intervocalic position, for instance in ɪwʊ "tail" and awɛ "grandmother PL." It is attested word-finally in only one word in the available data, aw "grandmother." Its occurrence is not predictable; therefore, it constitutes a phoneme.

Having described the Abu Jinuk consonants and their distribution within a word, one may draw the conclusion that Abu Jinuk has 17 consonantal phonemes, as illustrated in table 4 below.

Table 4. Consonant phonemes

		lab.	lab.-dent.	dent.	alv.	retr.	pal.	vel.
stop	vl			t̪		ʈ		k
	vd	b		d̪		ɖ	ɟ	g
fricative	vl		f				ʃ	
nasal	vd	m			n		ɲ	ŋ
liquid	vd				r			
lateral	vd				l			
glide	vd	w						

Table 4 shows that the phonemic consonant system includes three voiceless stops /t̪, ʈ, k/, five voiced stops /b, d̪, ɖ, ɟ, g/, two fricatives /f, ʃ/, and four nasals /m, n, ɲ, ŋ/, in addition to the liquids /r/ and /l/ and the glide /w/. As mentioned before, the phonemic status of some consonants is not well established and further investigation is needed.

We can divide the phonemes according to their distribution within a word into the following three groups:
- Word-initial, intervocalic and word-final: /b, w/
- Word-initial, intervocalic: /t̪, ʈ, k, d̪, ɖ, ɟ, g, f, ʃ/
- Intervocalic, word-final: /m, n, ɲ, ŋ, r, l/

To give further evidence of the phonemic status of the Abu Jinuk consonants, minimal or near minimal pairs are listed in table 5 below.

Table 5. Minimal pairs

(near) minimal contrast		gloss		gloss
/f/ : /ʃ/	faa	summer	ʃaa	thing

(near) minimal contrast		gloss		gloss
/k/ : /g/	kʊʊ	house	gʊʊ	placenta
/l/ : /n/	ʃʊlɛ	pot	ʃʊnɛ	fingernail PL
/b/ : /m/	ʊbɛ	fish PL	ʊmɛ	type of tree PL
/ɲ/ : /ɟ/	kʷaɲɛ	building	kʷaɟɛ	meat
/ɲ/ : /ŋ/	t̪uɲu	thigh	t̪uŋu	ring
/m/ : /ɲ/	kʊmʊ	leg	kʊɲʊ	face
/m/ : /ŋ/	kʊmʊ	leg	kʊŋʊ	snake
/r/ : /l/	karɛ	floor	kalɛ	eyes

The minimal pairs shown in table 5 indicate that there is a contrast of consonants in identical environments, as exemplified above. Therefore, each of these contrasting consonants will be considered to be a distinct phoneme. Finally, one may draw the conclusion that the identification of these consonants in different positions within a word and the minimal pairs give evidence to their phonemic status.

4. The consonant sequences

Languages often have restrictions on the sequence of consonants within a word. These restrictions vary considerably from one language to another. English, for instance, permits consonant sequences in all positions within a word. In Abu Jinuk, however, consonant sequences are not allowed word-initially[10] and word-finally. In the attested data, consonant sequences are only admitted word-medially. Table 6 shows the consonant sequences attested in Abu Jinuk.

description	consonant sequence	example	gloss
nasal+stop	nd̪	ɛnd̪ɛ	millet
	nɖ	iʃʊnɖoo	wrist
	nɟ	kɪmɪnɟa	four
	ŋk	kʊŋkʊʊl	hungry
nasal+liquid	ŋr	t̪ʷaŋrɛ	type of tree
liquid+stop	ld̪	dʊld̪ʊ	tooth
	lg	walgɛ	hunter
	rt̪	fart̪ɪgɛ	maturity
	rʈ	kʊrʈʊ	close friend
liquid+nasal	lm	ʃalmɛ	beard

Table 6. Consonant sequences

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10 The question whether the stops [t̪ʷ, ɖʷ, kʷ, gʷ] should be considered as one phoneme or as a sequence of consonants remains unanswered so far.

description	consonant sequence	example	gloss
stop+nasal	t̪n	ʊt̪nɛ	thirst
	ɟn	aɟnɛ	a tray-like tool made from palm
stop+liquid	bl	abla	light ADJ
	gr	kʷagrɛ	scratching of the body
stop+fricative	bʃ	t̪ɛbʃɛ	adopted female child
fricative+liquid	fr	kʊfrɛ	lung

The most common consonant sequence in the attested data is the sequence of the alveolar /n/ or /l/ plus the dental /d̪/, that is, /nd̪/ and /ld̪/.

Some consonants may occur as geminates. In the available data, geminate consonants are attested in intervocalic position only. They comprise the stops /d̪d̪/, /ɟɟ/, and the lateral /ll/, as exemplified in table 7 below.

Table 7. Geminate consonants

geminate consonant	example	gloss
d̪d̪	ɪd̪d̪a	eight
ɟɟ	faɟɟɛ	far
ll	kɛllɛ	red

The gemination of the consonants /ll/ and /ɟɟ/is used to express intensity and exaggeration, for instance, faɟɛ means "far" but faɟɟɛ means "quite far."

5. Comparison of the consonant systems of Abu Jinuk, Tagle, and Kadaru-Kurtala

In this section the similarities and differences between the consonant systems of Abu Jinuk, Tagle, and Kadaru-Kurtala are compared. The comparison will consider the distribution of consonants within words and the phoneme status in the three languages. Consonant sequences and geminate consonants will also be taken into account.

First, we will compare the consonant systems of Tagle and Abu Jinuk. According to Ibrahim and Huttenga,[11] the consonant inventory of Tagle comprises 24 consonants, out of which 17 are identified as phonemes. These are /b, t̪, d̪, t, d, k, g, ʃ, dʒ,[12] m, n, ɲ, ŋ, l, r, w, j/.

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11 IBRAHIM & HUTTENGA, "The Phoneme System of Tagle, a Kordofan Nubian Language," pp. 99–113.
12 In their consonant chart, Ibrahim & Huttenga do not use the IPA symbol [ɟ] for the voiced palatal stop. Instead, they use the symbol [dʒ] which is the IPA symbol representing a post-alveolar affricate.

The remaining consonants, [p, f, h, s, ç, ɾ, ɽ] do not have phonemic status, either due to the fact that some are rare in the language, as in the case of [p, f, h, s], or because some are analyzed as allophones, as in the case of [ç, ɾ, ɽ]. The first, [ç], is an allophone of /ʃ/ and the other two, [ɾ] and [ɽ], are allophones of /r/. Comparing the consonant system of Tagle to that of Abu Jinuk, one may conclude that the two languages share the same consonant phonemes with only few exceptions. First, the alveolar stops /t/ and /d/ in Tagle correspond to the retroflex stops[13] /ʈ/ and /ɖ/ in Abu Jinuk. Second, whereas /f/ is proved to be a phoneme in Abu Jinuk, it occurs only rarely in Tagle. Finally, the glide [j] does not have a phonemic status in Abu Jinuk whereas it is analyzed as a distinct phoneme in Tagle.

With regard to the consonant distribution within Tagle words, with the exception of /ɡ/, all the stops are attested in the word-initial and intervocalic position. However, their occurrence in the final position varies; for instance, the alveolars /t/ and /d/ do not occur word-finally. Nasals occur word-initially, word-finally and in intervocalic position. Liquids are admitted in intervocalic and word-final position. The fact that liquids are not admitted word-initially is also true for Abu Jinuk. However, one main difference between the two languages is that nasals are never attested word-initially in Abu Jinuk whereas they do occur in that position in Tagle.

Both languages, Tagle and Abu Jinuk, share the characteristic that consonant sequences and geminate consonants are only permitted word-medially. They also share the feature that gemination is used in some cases to add emphasis, as attested by the lateral /l/ in kɛllɛ "red" and the palatal /ɟ/ in tɛɟɟɛ "green."

As for Kadaru-Kurtala, Alaki and Norton[14] list 22 consonants characterized by five places of articulation, labial, dental, alveolar, palatal, and velar. Out of these consonants, only the obstruents [ʈ, t, d,[15] ʃ, ɟ, k] and the nasals [m, n, ɲ, ŋ] are attested in word-initial, intervocalic, and word-final position. The remaining consonants have limited distributions. Glides are attested in word-initial and intervocalic position. Liquids are not admitted word-initially. This is true for Abu Jinuk and Tagle, too. The fact that labialized stops occur word-initially is only true for Abu Jinuk and Kadaru-Kurtala. Ibrahim and Huttenga do not consider labialized stops either in their consonant chart or in the analysis. Finally, as in Tagle and Abu Jinuk, consonant sequences and geminate consonants are only attested in word-medial position.

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13 Ibrahim & Huttenga do not describe /t/ and /d/ as retroflex stops. They rather describe /t/ and /d/ as alveolar stops.
14 Alaki & Norton, "Kadaru and Kurtala Phonemes," p. 27.
15 The alveolar consonants /t/ and /d/ in Kadaru-Kurtala correspond to the retroflex consonants /ʈ/ and /ɖ/, respectively, in Abu Jinuk.

The following tables summarize how the consonantal phonemes are distributed in the three languages.

Table 8. Distribution of stops in Abu Jinuk, Tagle, and Kadaru-Kurtala

	Abu Jinuk			Tagle			Kadaru-Kurtala		
	w.-initial	inter-voc.	w.-final	w.-initial	inter-voc.	w.-final	w.-initial	inter-voc.	w.-final
b	+	+	+	+	+	+	+	+	−
ṭ	+	+	−	+	+	+	+	+	+
ḍ	+	+	−	+	+	+	−	+	+
t	−	−	−	+	+	−	+	+	+
d	−	−	−	+	+	−	+	+	+
tʷ	−	−	−	−	−	−	+	−	−
ʈ	+	+	−	−	−	−	−	−	−
ɖ	+	+	−	−	−	−	−	−	−
ʈʷ	+	−	−	−	−	−	−	−	−
ɖʷ	+	−	−	−	−	−	−	−	−
k	+	+	−	+	+	+	+	+	+
g	+	+	−	−	+	+	−	+	−
kʷ	+	−	−	−	−	−	+	−	−
gʷ	+	−	−	−	−	−	−	−	−
ɟ	+	+	−	+	+	+	+	+	+

Table 8 shows that the three languages share nearly the same set of stops with only two exceptions. One exception is that the alveolar stops /t/ and /d/ in Tagle and Kadaru-Kurtala correspond to the retroflex stops /ʈ/ and /ɖ/, respectively, in Abu Jinuk. The other exception is that Tagle lacks the labialized stops which occur word-initially in the other two languages.

Table 9. Distribution of fricatives in Abu Jinuk, Tagle, and Kadaru-Kurtala

	Abu Jinuk			Tagle			Kadaru-Kurtala		
	w.-initial	inter-voc.	w.-final	w.-initial	inter-voc.	w.-final	w.-initial	inter-voc.	w.-final
f	+	+	−	+	−	−	−	−	−
ʃ	+	+	−	+	+	−	+	+	+

As illustrated in table 9, the palatal /ʃ/ is documented in the three languages. However, the labiodental /f/ is analyzed as a phoneme in Abu Jinuk whereas it occurs in only few cases in Tagle. It is not attested in Kadaru-Kurtala.

Table 10. Distribution of nasals in Abu Jinuk, Tagle, and Kadaru-Kurtala

	Abu Jinuk			Tagle			Kadaru-Kurtala		
	w.-initial	inter-voc.	w.-final	w.-initial	inter-voc.	w.-final	w.-initial	inter-voc.	w.-final
m	-	+	+	+	+	+	+	+	+
n	-	+	+	+	+	+	+	+	+

	Abu Jinuk			Tagle			Kadaru-Kurtala		
	w.-initial	inter-voc.	w.-final	w.-initial	inter-voc.	w.-final	w.-initial	inter-voc.	w.-final
ɲ	-	+	+	+	+	+	+	+	+
ŋ	-	+	+	+	+	+	+	+	+

Although nasals are analyzed as phonemes in the three languages, one notable difference between them is that nasals[16] never occur word-initially in Abu Jinuk whereas they are admitted in that position in Tagle and Kadaru-Kurtala.

	Abu Jinuk			Tagle			Kadaru-Kurtala		
	w.-initial	inter-voc.	w.-final	w.-initial	inter-voc.	w.-final	w.-initial	inter-voc.	w.-final
r	-	+	+	–	+	+	–	+	+
l	-	+	+	–	+	+	–	+	+

Table 11. Distribution of liquids in Abu Jinuk, Tagle, and Kadaru-Kurtala

One major characteristic shared by the three languages is that liquids are not admitted word-initially; rather they are attested in intervocalic and word-final position. Another common feature of the three languages is that liquids are mostly found as first consonants in consonant sequences.

	Abu Jinuk			Tagle			Kadaru-Kurtala		
	w.-initial	inter-voc.	w.-final	w.-initial	inter-voc.	w.-final	w.-initial	inter-voc.	w.-final
w	+	+	+	+	+	–	+	+	–
j	-	+	+	–	+	–	+	+	–

Table 12. Distribution of glides in Abu Jinuk, Tagle, and Kadaru-Kurtala

Whereas both the bilabial /w/ and the palatal /j/ are analyzed as phonemes in Tagle, only /w/ is established as a phoneme in Abu Jinuk. By contrast, the phonemic status of the two glides is not yet certain in Kadaru-Kurtala.

Finally, the three languages share the characteristic that consonant sequences and geminate consonants are only admitted word-medially. However, which consonants may follow each other vary between the three languages.

16 The only example of a nasal found in word-initial position in Abu Jinuk is mɔɲumɔɲ which means "ant." Being the only example of initial /m/ makes it very probable that the word might have been borrowed from another language where nasals (or at least /m/) are permitted in that position.

6. Findings and suggestions

The current study has focused mainly on the consonant system of Abu Jinuk, i.e. the identification of phonemes and their allophones and the distribution of the consonants in the various positions within words. The consonant sequences and geminate consonants were also discussed. The study has also pointed out the similarities and differences between the consonant systems of Abu Jinuk, Tagle, and Kadaru-Kurtala. Since these languages are closely related, the present study has found out that, with only few exceptions, the three languages share nearly the same consonant systems. They differ in the following points. First, the labiodental /f/ is proved to be a phoneme in Abu Jinuk whereas it does not occur in Kadaru-Kurtala and it is attested in only two words in Tagle. Second, the phonemes /t/ and /d/ are described as alveolar consonants in Tagle and Kadaru-Kurtala, whereas they have a retroflex articulation in Abu Jinuk, i.e. they are realized as [ʈ] and [ɖ], respectively. Another major difference between Abu Jinuk on the one hand and Tagle and Kadaru-Kurtala on the other is that nasals are never admitted word-initially in Abu Jinuk whereas they do occur in that position in the other two languages. Finally, whereas the glides /w/ and /j/ are established as phonemes in Tagle, only the former is identified as a phoneme in Abu Jinuk. The phonemic status of the glides is not yet certain in Kadaru-Kurtala.

Moreover, the three languages share the characteristic that liquids are not permitted word-initially; consonant sequences and geminate consonants are only admitted word-medially.

Some questions still have to be answered and therefore require future investigations in Abu Jinuk. Should the labialized stops be analyzed as a sequence of two consonants or as one phoneme? Furthermore, more investigations are still needed regarding the phonemic status of some consonants, particularly the glides.

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Possessor Ascension in Taglennaa (Kordofan Nubian)

Gumma Ibrahim Gulfan

1. Introduction

Taglennaa is a Kordofan Nubian language. The term Taglennaa, which literally means the language of the people of Tagle, is derived from Tagle-n-ii-n-aa which is in turn derived from Tagle-n-ini-n-aa where ii/ini means "people," aa means "language, speech" and -n is the genitive marker. Taglennaa is spoken in the village of Tagle which is situated on the eastern side of the Kadaru Hills. These hills are commonly known by their Arabic name *al-jibaal al-sitta,* "the six hills." The other five communities sharing the hills with Tagle are: Kadaru, Dabatna, Kuldaji, Kurtala, and Kafer. The linguistically related communities of Jebel al-Dair, Dilling, and Ghulfan lie to the east, west, and south west of the Kadaru Hills, respectively. Taglennaa is mutually intelligible with the other languages of *al-jibaal al-sitta* as well as with the languages of Jebel al-Dair and Uncu. Hence, the possessor ascension (PA) analysis provided here may apply to a great extent to all aforementioned languages. The data in this paper are based on the author's insights and knowledge of the Tagle language as a native speaker.

Taglennaa is an SOV language. Direct objects, indirect objects, and oblique constituents tend to occur before the verb. However, the relative order of these elements is not strictly fixed. Subjects are not case-marked in Taglennaa. Both direct and indirect objects are marked with the accusative marker -gi or one of its phonologically conditioned variants. Transitive and intransitive verbs have distinct sets of aspect and modality markers. Two of these markers, nal and bol mark the ability modalities. The suffix nal is used with transitive verbs while bol is used with intransitive verbs. These aspect markers are glossed as COMPL1 and COMPL2, respectively. They are used

in this paper for the purpose of illustrating contrasts between transitive and intransitive clauses.

There are two ways for expressing possessor relations in Taglennaa, as exhibited in exx. 1a and 1b below.[1]

1a   komul onuna ɪʏgɪ uggenammɪn
    komul   onu–na   ɪʏ–gɪ   urge–nal–mɪn
    camel   donkey-GEN tail-ACC trample.on-COMPL1-3SG.PST
    "The camel has trampled on the donkey's tail"

1b   komul onugi ɪʏnɔɔ uggenammɪn
    komul   onu–gi   ɪʏ–nɖɔɔ   urge–nal–mɪn
    camel   donkey-ACC tail-LOC trample.on-COMPL1-3SG.PST
    "The camel trampled the donkey on his tail"

As shown in the base construction in ex. 1a, both possessor and possessed can appear in a single possessive noun phrase headed by the possessed. Here the possessive noun phrase, onu–na ɪʏ "the donkey's tail," has the structure NP₁-GEN NP₂ where NP₁ is the possessor and NP₂ is the possessed. The possessor is marked with the genitive marker –n or its allomorph –na depending on the phonological environment.

Alternatively, in PA constructions, the possessor and the possessed can appear as distinct constituents of the clause, as shown in ex. 1b, where onu is accusative-marked by –gi while ɪʏ is locative-marked by –nɖɔɔ. Nevertheless, onu is interpreted as possessor rather than as a patient.

Constructions similar to ex. 1b are said to be derivations from constructions similar to ex. 1a and have been analyzed using different linguistic frameworks and given various definitions such as:
- Enlarged / Extended Arguments[2]
- PA[3]
- Applicative Constructions[4]
- Possessor Raising[5]
- Possessor Agreement[6]
- External Possession[7]

According to these analyses, PA constructions have the following key characteristics:

1 The first line in each of the examples shows how the examples are realized in Taglennaa while the second line shows how they are morphologically composed.
2 SIMANGO, "Enlarged arguments in Bantu: Evidence from Chichewa."
3 ROBINSON, "Possessor Ascension in Generative Grammar."
4 FOX, "Body Part Syntax: Towards a Universal Characterization."
5 BARSHI & PAYNE, "The Interpretation of 'Possessor Raising' in a Maasai Dialect."
6 CHO & LEE, "Possessor Agreement as Theta Feature Sharing."
7 DEAL, "External Possession and Possessor Raising."

▸ There is an overt or implied possessor relationship expressed by genitives in the base constructions such as ex. 1a from which PA constructions such as ex. 1b are derived;

▸ The possessor noun phrase assumes the syntactic function of its host phrase, i.e. it is the object of a transitive clause or subject of an intransitive clause, and the possessed noun phrase becomes an oblique argument;

▸ Verbs, including intransitive verbs, take extra arguments;

▸ These extra arguments are interpreted as having the semantic role of possessor rather than patient or agent;

▸ They express the fact that the referent of the possessor noun phrase is affected by actions or events which are directly impacting the referent of the possessed noun phrase;

Since PA is the most commonly used term for describing this phenomenon it has been adopted in this paper.

The objective of this paper is to present a number of constructions in Taglennaa which have similar characteristics to those listed above. The paper will focus on:

1. The factors that are associated with the realization of PA in Taglennaa, particularly transitivity, verb class, and the type of the underlying genitive relation in the base construction.

2. The different ways in which PA can be realized in Taglennaa.

The paper will proceed as follows: An overview of PA strategies in Taglennaa will be provided in section 2 and 3, followed by a presentation of the individual strategies in sections 4 to 7. A summary of the main findings is provided in section 8.

2. An Overview of PA in Taglennaa

Evidence of PA in Taglennaa has already been provided in ex. 1.b above. Exx. 2 to 6 below present five manifestations of PA, as it occurs in five distinct situations, see subsections 1–5 below. More details on PA scenarios are provided in section 3.

2.1 PA in a transitive clause with the possessive noun phrase functioning as a direct object

In the base construction in ex. 2a the possessive noun phrase onu‑na ɪy is the syntactic object of the clause and case-marked by -gɪ. In the PA construction in ex. 2b, onu is marked by the accusative marker –gi while ɪy is marked by the locative marker –ndɔɔ.

2a   komul onuna ɪygɪ uggenammɪn

       komul   onu-na   ɪy-gɪ   urge-nal-mɪn

       camel   donkey-GEN   tail-ACC   trample.on-COMPL1-3SG.PST

       "The camel has trampled on the donkey's tail"

2b   komul onugi ɪynɔɔ uggenalmɪn

       komul   onu-gi   ɪy-ndɔɔ   urge-nal-mɪn

       camel   donkey-ACC   tail-LOC   trample.on-COMPL1-3SG.PST

       "The camel has trampled the donkey on its tail"

2.2 PA *in an intransitive clause with the possessive noun phrase functioning as a subject*

In ex. 3a the possessive noun phrase onu-na ɪy is the unmarked syntactic subject of the intransitive base clause. In ex. 3b the possessor onu appears as an object marked by the accusative marker –gi while the possessed ɪy functions as the subject. This illustrates how intransitive verbs in Taglennaa can take one more argument than their argument frame structure would normally allow as a result of PA.

3a   onuna ɪy ɖɔʈɪbommɪn

       onu-na   ɪy   ɖɔʈɪ-bol-mɪn

       donkey-GEN   tail   cut.off-COMPL2-3SG.PST

       "The donkey's tail has been severed"

3b   onugi ɪy ɖɔʈɪbommɪn

       onu-gi   ɪy   ɖɔʈɪ-bol-mɪn

       donkey-ACC   tail   cut.off-COMPL2.3SG.PST

       "The donkey had its tail severed"

2.3 PA *in a transitive clause with the possessive noun phrase functioning as a subject*

In ex. 4a the possessive noun phrase komul-na kʊɡdʊ is the unmarked syntactic subject (and semantic agent) in the transitive base clause. In the PA construction in ex. 4b komul is the unmarked subject while kʊɡdʊ is marked by the instrumental marker –kɔ.

4a   komulna kʊddʊ onugi uggenammɪn

       komul-na   kʊɡdʊ   onu-gi   urge-nal-mɪn

       camel-GEN   leg   donkey-ACC   trample.on-COMPL1-3SG.PST

       "The camel's leg has trampled the donkey"

komul kʊddʊkɔ onugi uggenammɪn   4b
komul kʊgdʊ–kɔ onu–gi   urge–nal–mɪn
camel leg-INST donkey-ACC trample.on-COMPL1-3SG.PST
"The camel has trampled the donkey with its leg"

2.4 PA in a transitive clause with a durative verb and a possessive noun   175
phrase functioning as a direct object
In the base construction in ex. 5a the possessive noun phrase onu–
na ɪy–gɪ is the accusative-marked object of the clause while in ex. 5b
both onu and ɪy are marked with the accusative marker –gi. More-
over, the durative verb akɪ is marked with the applicative marker
–nd.

onuna ɪygɪ tɪɲtʃɔ akɪnalɛ   5a
onu–na   ɪy–gɪ   tɪŋ–kɔ   akɪ–nal–ɛ
donkey-GEN tail-ACC oil-INST   rub-COMPL1-1SG.PST
"I have rubbed the donkey's tail with oil"

onugi ɪygɪ tɪɲtʃɔ akɪnaldɛ   5b
onu–gi   ɪy–gɪ   tɪŋ–kɔ   akɪ–nal–nd–ɛ
donkey-ACC tail-ACC oil-INST   rub-COMPL1-APPL-1SG.PST
"I have rubbed the donkey's tail with oil" /
"I have rubbed the donkey with oil on his tail"

2.5 PA in a transitive clause with a punctual verb and a possessive noun
phrase functioning as a direct object
In the base construction in ex. 6a the possessive noun phrase onu–
na ʊr is the syntactic object of the clause. In the PA construction in
ex. 6b onu is accusative-marked by –gi while ʊr is marked by the
locative marker –ndɔɔ.

onuna ʊggɪ kitenale   6a
onu–na   ʊr–gɪ   kite–nal–e
donkey-GEN head-ACC touch-COMPL1-1SG.PST
"I have touched the donkey's head"

onugi ʊnndɔɔ kitenale   6b
onu–gi   ʊr–ndɔɔ   kite–nal–e
donkey-ACC head-LOC touch-COMPL1-1SG.PST
"I have touched the donkey's head" /
"I have touched the donkey on his head"

The (a) sentences in the above examples represent the base posses-
sive noun phrase constructions from which the PA constructions in

the (b) sentences have been derived. This scheme will be followed throughout this paper unless stated otherwise.

In exx. 2a, 3a, 5a, and 6a ɔnu is a noun bearing a possessor relation to ɪy and ʊr in the possessive noun phrases ɔnu–na ɪy and ɔnu–na ʊr of which ɪy and ʊr are the heads, respectively. These noun phrases function as direct objects of the clauses in exx. 2a, 5a, and 6a and as a subject in ex. 3a.

As a result of the PA process, ɔnu has ascended to take over the position of a direct object in ex. 2b, and the position of indirect object in 5b and 6b while ɪy and ʊr have lost their status as the heads of the possessive noun phrase and have been relegated to oblique elements marked with locative case marker.

Likewise in ex. 3b, ɔnu has ascended to the position of direct object in an intransitive clause. This is attested by the accusative marker -gi on ɔnu and the aspect marker -bɔl on the intransitive verb dɔtɪ. The subject of the intransitive clause, ɪy, is not affected by this process.

In ex. 4a, komul is a noun bearing a possessor relation to kʊgdʊ in the possessive noun phrase komul–na kʊgdʊ which functions as the syntactic subject (with the semantic role of agent) of the clause. As a result of the PA process, komul has ascended to take over the function of subject in the clause in ex. 4b. Meanwhile, kʊgdʊ has lost its status as the head of the possessive noun phrase and has been relegated to an oblique element with an instrumental case marker.

The examples show that in all cases the possessor ascends to assume a new grammatical relation. In transitive clauses, it ascends to the position of subject or object depending on the whether the host possessor noun phrase originally functioned as a subject, as seen in ex. 4b or as an object, as seen in ex. 2b. In ditransitive clauses it ascends to the position of indirect object as seen in ex. 5b. In intransitive clauses, the possessor ascends to become a direct object, as seen in ex. 2b. The argument frames of the verbs involved have been enlarged to allow extra arguments. This is also possible for intransitive verbs. As intransitive verbs do not categorize for objects, these extra arguments are interpreted by speakers of the language as having the semantic role of a possessor rather than the semantic role of patient or agent.

3. PA strategies

PA constructions are derived from certain genitive relations in Taglennaa: possessor relations, body-part relations and whole-part relations. Moreover, they are used only with a small set of semantically defined verb classes: verbs of change of state, verbs of impact by

contact, and causative verbs. They are used to express the affected-
ness of the referents of possessors in possessive noun phrase with
actions, events, or processes which have direct impact on the refer-
ents of the possessed noun phrase. When a possessor noun phrase is
an agent, PA constructions are used to express its responsibility for
the action denoted by the verb. There are a number of PA scenarios
that can be grouped into five strategies in Taglennaa. The scenarios
are governed by the following factors:

▸ The transitivity of the verb in the base construction
▸ The syntactic function of the possessive noun phrase: subject or
  object
▸ The semantically defined class of the verb in the clause.

PA scenarios manifest themselves in the syntactic functions the pos-
sessors ascend to assume combined with how the possessed noun
phrases are marked:

▸ Scenario 1: The possessor ascends to direct object and the pos-
  sessed is not marked: **No possessed marking strategy** (ex. 3).
▸ Scenario 2: The possessor ascends to direct object and the pos-
  sessed is marked as locative: **Locative marking strategy** (ex. 2).
▸ Scenario 3: The possessor ascends to indirect object and the verb
  is marked as an applicative: **Indirect object marking strategy**
  (ex. 5).
▸ Scenario 4: The possessor ascends to subject and the possessed is
  marked as locative: **Locative marking strategy** (ex. 6).
▸ Strategy 5: The possessor ascends to subject and the possessed is
  marked as instrumental: **Instrumental marking strategy** (ex. 4).

Further analysis is provided for each strategy in the following sec-
tions concentrating on the following topics:

▸ Applicable clause types
▸ Applicable verb classes
▸ How is PA realized?
▸ Relevant genitive relations

4. No possessed marking strategy

This strategy applies to two classes of intransitive verbs: (i) inter-
nally caused change of state verbs, and (ii) externally caused change
of state verbs. In the base construction, the whole possessive noun
phrase functions as the subject of the clause. Under this PA strat-
egy, the possessor loses its genitive marking and ascends as an extra
argument to assume the syntactic function of direct object in the
clause. The possessed, being the only remaining element after PA,
takes on the role of the subject. Since subjects are not case-marked
in Taglennaa, the possessed surfaces unmarked. The accusative-

marked possessor is interpreted as having the semantic role of possessor rather than that of patient.

4.1 PA *with internally caused change of state verbs*

Verbs of internally caused change of state express atelic and gradual physical and non-physical changes that impact body-parts (ex. 7) and changes in emotional conditions (ex. 8) or social status that affect animate entities (ex. 9). The type of changes that are expressed by these verbs are not initiated by external forces nor are they controlled by entities that undergo these changes. PA constructions are used to express the affectedness of the referents of the possessor noun phrase with such changes.

Exx. 7–9 below provide instances of PA involving verbs of internally caused change of state. The (b) sentences in the examples represent the PA constructions derived from the (a) sentences which represent the underlying or base possessor constructions.

In all three examples, Musa, the possessor noun phrase, loses the genitive marking as a result of PA, takes accusative marking and assumes the function of direct object, albeit in intransitive clauses. Meanwhile, the possessed noun phrases iʃi, mal, and er lose their positions as heads of their possessive noun phrases. The verbs in the examples – all intransitive verbs – have arguments marked as direct objects as a result of PA.

Even though the (a) sentences are grammatically sound, their PA counterparts are more likely to be used by speakers of the language in these situations.

▸ PA with internally caused change of physical state verbs

7a   Musana iʃi teribommɪn
     Musa–na   iʃi   teri–bol–mɪn
     Musa-GEN   hand be.numb.COMPL2-3SG.PST
     "Musa's hand has become numb"

7b   Musagɪ iʃi teribommɪn
     Musa–gɪ   iʃi   teri–bol–mɪn
     Musa-ACC   hand be.numb-COMPL2-3SG.PST
     "Musa has his hand become numb"

▸ PA with internally caused change of non-physical (emotional) state verbs

8a   Musana mal tibommɪn
     Musa–na   mal   ti–bol–mɪn
     Musa-GEN   hope die-COMPL2-3SG.PST
     "Musa has lost hope (lit. Musa's hope has died)"

Musagɪ mal tibommɪn   8a
Musa–gɪ   mal   ti–bol–mɪn
Musa-ACC   hope   die-COMPL2-3SG.PST
"Musa has lost hope"

- PA with internally caused change of non-physical (social status)   179
  state verbs
  Musana er doyibommɪn   9a
  Musa–na   er   doyi–bol–mɪn
  Musa-GEN   name   be.damaged-COMPL2-3SG.PST
  "Musa has lost his (good) reputation (lit. Musa's name is damaged)"

  Musagɪ er doyibommɪn   9b
  Musa–gɪ   er   doyi–bol–mɪn
  Musa-ACC   name   be.damaged-COMPL2.3SG.PST
  "Musa has his reputation damaged"

4.2 *Body part idioms*

There are also situations where possessive constructions would be semantically unsound to use and as such, only PA constructions are used. Body part idioms are the most obvious example of situations where only PA constructions are used to express affectedness by internally caused changes of state. Body part idioms are used in Taglennaa in conjunction with internally caused change of state verbs to express both physical and non-physical changes, as shown exx. 10 and 11. As evidenced in other situations, the use of PA in these situations may be explained by the contiguity of the body part to its possessor.[8]

- PA with body-part idiom denoting change in physical state
  *Musana il tibommɪn   10a
  Musa–na   il   ti–bol–mɪn
  Musa-GEN   body   die-COMPL2-3SG.PST

  Musagɪ il tibommɪn   10b
  Musa–gɪ   il   ti–bol–mɪn
  Musa-ACC   body   die-COMPL2-3SG.PST
  "Musa has become paralyzed"

- PA with body-part idiom denoting change in non-physical state
  *Ahmedna ʊr ʃɪrɪbommɪn   11a
  Ahmed–na   ʊr   ʃɪrɪ–bol–mɪn
  Ahmed-GEN   head   be.silent.COMPL2-3SG.PST

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8   Fox, "Body Part Syntax: Towards a Universal Characterization."

11b   Ahmedgɪ ʊr ʃɪrɪbommɪn
       Ahmed–gɪ   ʊr   ʃɪrɪ–bol–mɪn
       Ahmed-ACC head be.silent-COMPL2-3SG.PST
       "Ahmed has become stunned (lit. Ahmed's head has become silent)"

4.3 PA *with externally caused change of state verbs*

Externally caused change of state verbs express dynamic and telic physical changes of state caused by external forces. PA constructions involving these verbs express affectedness of animate and inanimate referents of possessor noun phrases by actions or events impacting on the referents of the possessed objects, i.e. they apply to both animate and inanimate objects in body-part and whole-part relations. Exx. 12 to 13 provide instances of PA involving this verb class. The (b) sentences in the examples represent the PA constructions derived from the (a) sentences which represent the underlying or base possessor constructions.

Even though the (a) sentences are grammatically sound, their PA counterparts are more likely to be used by speakers of the language in these situations.

▸ PA with externally caused change verbs and animate possessor

12a   Alina ontu nɔŋɪbommɪn
       Ali–na   ontu nɔŋɪ–bol–mɪn
       Ali-GEN arm break-COMPL2-3SG.PST
       "Ali's arm is broken"

12b   Aligi ontu nɔŋɪbommɪn
       Ali–gi   ontu nɔŋɪ–bol–mɪn
       Ali-ACC arm break-COMPL2-3SG.PST
       "Ali's arm is broken"

▸ PA with externally caused change verbs and inanimate possessor

13a   aŋgɪrɛna kʊtʊr kakɪbommɪn
       aŋgɪrɛ–na kʊtʊr kakɪ–bol–mɪn
       bed-GEN leg   crack-COMPL2-3SG.PST
       "The leg of the bed has cracked"

13b   aŋgɪrɛgɪ kʊtʊr kakɪbommɪn
       aŋgɪrɛ–gɪ kʊtʊr kakɪ–bol–mɪn
       bed-ACC leg   crack-COMPL2-3SG.PST
       "The leg of the bed has cracked"

4.4 PA *with physically attached and contiguous objects*

In addition to body-part and whole-part relations, this PA strategy applies also to some alienably possessed objects that are physically attached to or contiguous to their possessors such as items of clothing. Their usage extends even to alienably possessed objects with high economic or psychological values attached to them by their possessors such as money, animals and similar symbols of wealth. This is shown in exx. 14 and 15.

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▸ PA with physically attached or contiguous possessed objects
    Jadana kʊman bɛʃɪbommɪn   14a
    Jada–na   kʊman   bɛʃɪ–bol–mɪn
    Jada-GEN garment tear-COMPL2-3SG.PST
    "Jada's garment has ruptured"

    Jadagɪ kʊman bɛʃɪbommɪn   14b
    Jada–gɪ   kʊman   bɛʃɪ–bol–mɪn
    Jada-ACC garment tear-COMPL2-3SG.PST
    "Jada's garment has ruptured"

▸ PA with items of high value
    Addena guruʃe bɛkkɪbɛlamɪn   15a
    Adde–na   guruʃe   bɛrkɪ–bɛl–a–mɪn
    Adde-GEN money.PL be.lost-COMPL2.PL-3PL-PST
    "Adde's money is lost"

    Addegɪ guruʃe bɛkkɪbɛlamɪn   15b
    Adde–gɪ   guruʃe   bɛrkɪ–bɛl–a–mɪn
    Adde-ACC money.PL be.lost-COMPL2.PL-3PL-PST
    "Adde's money is lost"

Whereas a PA construction can be used with contiguous, physically attached and high-value alienably possessed objects, as shown in ex. 15b above, it cannot be used with alienably possessed objects that are not physically attached or are not of high values to their possessors as shown in ex. 16b below.

▸ PA impossible with alienably possessed, non-contiguous, non-high value objects
    Jadana ʈɔŋ bɛʃɪbommɪn   16a
    Jada–na   ʈɔŋ   bɛʃɪ–bol–mɪn
    Jada-GEN gourd tear-COMPL2-3SG.PST
    "Jada's gourd has ruptured"

16b   *ʃadagɪ ʈɔŋ bɛʃɪbommɪn
       Jada–gɪ   ʈɔŋ   bɛʃɪ–bol–mɪn
       Jada-ACC gourd tear-COMPL2-3SG.PST

5. Locative-marking strategy

This strategy applies to two classes of transitive verbs known as verbs of impact by contact, transitive causative verbs and a small set of intransitive change of state verbs. Under this strategy, the possessor ascends to assume the syntactic role of direct object while the possessed object loses its status of head of the possessive noun phrases and is relegated to an oblique marked as a locative. Though marked as direct object, the new argument is still interpreted as having the semantic role of possessor rather than patient. This strategy applies to both animate and inanimate objects in body-part and whole-part relations, as exhibited in exx. 17–19. As shown in exx. 17c, 18c, and 19c, the element marked with the locative marker is an adjunct that can be dropped from the utterance without significantly affecting the meaning. Hence, it can be concluded that the locative marking serves the purpose specifying the locus of the action.

5.1 Locative marking PA strategy with verbs of impact designating forceful surface contact
Taglennaa verbs of impact by contact include a group of transitive verbs referred to as "hit verbs" that designate semelfactive, punctual, and telic actions. PA constructions formed with this class of verbs are used to express affectedness of referents of possessors in possessive noun phrases with actions that have direct impact on their parts.

 ‣ PA with punctual verbs of impact by contact

17a   Dʊkʊlana ʊggɪ kitenale
       Dʊkʊla–na   ʊr–gɪ   kite–nal–e
       Dukula-GEN head-ACC touch-COMPL1-1SG.PST
       "I have touched Dukula's head"

17b   Dʊkʊlagɪ ʊnndɔɔ kitenale
       Dʊkʊla–gɪ   ʊr–ndɔɔ   kite–nal–e
       Dukula-ACC head-LOC touch-COMPL1-1SG.PST
       "I have touched Dukula's head / I have touched Dukula on his head"

17c   Dʊkʊlagɪ kitenale
       Dʊkʊla–gɪ   kite–nal–e
       Dukula-ACC touch-COMPL1-1SG.PST
       "I have touched Dukula"

5.2 Locative marking PA strategy with causative verbs

Some causative transitive verbs which are derived from intransitive verbs of change of state participate in PA constructions formed with locative strategy.

- PA with causative verbs   183

ɪdʊ tɛndʊna kʊddʊgɪ ʈɔnnɪgɪmɪn   18a
ɪdʊ   tɛrndʊ-na   kʊgdʊ-gɪ ʈɔnnɪ-gɪ-mɪn
woman   girl-GEN   leg-ACC   break-CAUS-3SG.PST
"The woman broke the girl's leg"

ɪdʊ tɛndʊ kʊddʊnɔɔ ʈɔnnɪgɪmɪn   18b
ɪdʊ   tɛrndʊ-gɪ kʊgdʊ-ndɔɔ   ʈɔnnɪ-gɪ-mɪn
woman   girl-ACC   leg-LOC   break-CAUS-3SG.PST
"The woman broke the girl's leg"

ʊdʊ tɛndʊgɪ ʈɔnnɪgɪmɪn   18c
ɪdʊ   tɛrndʊ-gɪ ʈɔnnɪ-gɪ-mɪn
woman   girl-ACC   break-CAUS-3SG.PST
"The woman broke the girl"

5.3 Locative marking PA strategy with change of state verbs

There are a few cases in which intransitive change of state verbs are involved in PA constructions using the locative strategy.

- PA with change of state verbs

Musana ontu nɔŋɪbommɪn   19a
Musa-na   ontu   nɔŋɪ-bol-mɪn
Musa-GEN   arm   break-COMPL2-3SG.PST
"Musa's arm has broken"

Musa ontunɔɔ nɔŋɪbommɪn   19b
Musa   ontu-ndɔɔ   nɔŋɪ-bol-mɪn
Musa   arm-LOC   break-COMPL2-3SG.PST
"Musa's arm has broken"

Musa nɔŋɪbommɪn   19c
Musa   nɔŋɪ-bol-mɪn
Musa   break-COMPL2-3SG.PST
"Musa has (been) broken"

6. Indirect object marking PA strategy

This PA strategy applies to two classes of transitive verbs, durative process verbs (see §6.1) and causative verbs (see §6.2). The indirect object marking PA strategy involves both animate and inanimate objects in body-part and whole-part relationships. Under this strategy, the possessor noun phrase ascends as a new argument to assume the syntactic function of an indirect object while the possessed noun phrase assumes the function of direct object. As in all other situations, the new argument is interpreted as having the semantic role of possessor rather than beneficiary. PA constructions under this strategy are similar in form to applicative constructions. However, while no possessor, whole-part, or body-part relations are generally implied or necessary for applicative constructions, these relations are implied in this PA scenario. It is also worth mentioning that it is possible to form applicative constructions with virtually all verbs in Taglennaa, except for the verb "give."

6.1 Indirect object marking PA strategy with durative process verbs
PA constructions formed with durative process verbs indicate the affectedness of the referents of the possessor noun phrases with durative processes performed on their parts. As a result of PA, the possessor tɛrndʊ in ex. 20a ascends to assume the function of direct object in ex. 20b while the possessed iʃi is marked with the accusative marker even though a locative interpretation is also possible, as shown in the translation. These verbs are a subset of verbs of impact by surface contact that do not allow locative marking on the objects.

▸ PA with durative verbs

20a   tɛndʊna iʃigi ʈɪɲtʃɔ ogenalɛ
      tɛrndʊ–na   iʃi–gi   ʈɪɲ–kɔ   oge-nal-ɛ
      girl-GEN   hands-ACC   oil-INST   rub-COMPL1-1SG.PST
      "I have rubbed the girl's hands with oil / I have rubbed oil on the girl's hands"

20b   tɛndʊgɪ iʃigi ʈɪɲtʃɔ ogenalɖɛ
      tɛrndʊ–gɪ   iʃi–gi   ʈɪɲ–kɔ   oge-nal–nɖ–ɛ
      girl-ACC   hands-ACC   oil-INST   rub-COMPL1-APPL-1SG.PST
      "I have rubbed the girl's hands with oil / I have rubbed oil on the girl's hands"

Passive constructions are not common in Taglennaa. However, ex. 20a can be expressed as an intransitive clause as follows:

tɛndʊna iʃi ogebɛlamɪn   20c
tɛrndu–na iʃi   oge–bɛl–a–mɪn
girl-GEN hand.PL rub-COMPL2.PL-3PL-PST
"The girl's hands have been rubbed"

Here, the possessor noun phrase functions as the subject of the   185
intransitive verb oge which is marked by the intransitive aspect
marker bɛl.

6.2 Indirect object marking PA with causative verbs
This strategy applies to a set of causative verbs derived from change
of state verbs that do not allow locative marking in PA constructions
and take indirect object marking instead.

▸ PA with causative verbs
   bogul onuna ɪygɪ dɔʈɪgammɪn   21a
   bogul onu–na   ɪy–gɪ   dɔʈɪ–gɪ–nal–mɪn
   hyena donkey-GEN tail-ACC cut.off-CAUS-COMPL2-3SG.PST
   "The hyena has severed the donkey's tail"

   bogul onugi ɪygɪ dɔʈɪgaldɪmɪn   21b
   bogul onu–gi   ɪy–gɪ   dɔʈɪ–gɪ–nal–ndi–mɪn
   hyena donkey-ACC tail-ACC cut.off-CAUS-COMPL2-APPL-3SG.PST
   "The hyena has severed the donkey's tail"

7. Instrumental marking PA strategy

This strategy applies in possessive constructions where the posses-
sive noun phrase functions as the subject in transitive clauses. In
the base construction, the possessor will be marked for genitive case
while the possessed which is the head of the possessive noun phrase
is unmarked. As a result of the PA process, the possessor ascends
to assume the syntactic function of subject while the possessed is
demoted to an oblique marked for instrumental case. Whether the
subject plus instrumental construction will attract a genitive inter-
pretation depends on the possible relations that can be observed be-
tween the two elements. A genitive meaning will be rendered if the
element case-marked as instrumental can be inalienably possessed
by the subject or is attached or contiguous to it. Under this strategy,
PA constructions indicate the fact that the ultimate responsibility
for the actions expressed as carried out by the possessed entities in
the base constructions, lie with the referents of their possessors.

▸ PA with the instrumental marking strategy: the possessive noun phrase has the semanto-syntactic function of an agent

22a   Ahmedna kɪtʊ iddi kitemɪn
         Ahmed–na   kɪtʊ   id–gi   kite–mɪn
         Ahmed-GEN cloth   man-ACC touch-3SG.PST
         "Ahmed's cloth touched the man"

22b   Ahmed kitʊkɔ iddi kitemɪn
         Ahmed   kitʊ–kɔ   id–gi   kite–mɪn
         Ahmed   cloth-INST man-ACC touch-3SG.PST
         "Ahmed's cloth touched the man / Ahmed touched the man with his cloth"

8. Summary

PA constructions are derived from certain types of genitive constructions encoding the following types of relations:
▸ Body-part relations, as seen in ex. 7
▸ Whole-part relations, as in exx. 12-13.
▸ Body-part idioms, as in exx. 10-11.
▸ Physically attached and contiguous items, as in ex. 14.
▸ Alienably possessed, high-value items, as in ex. 15.

PA constructions are used to express affectedness, and in that respect they are preferred to underlying genitive constructions.

PA constructions are used with certain sets of transitive and intransitive verb classes:
▸ Verbs of change-of-state, as in exx. 18–19.
▸ Verbs of impact by contact, as in ex. 20.
▸ Causative verbs derived from verbs of change of state, as in ex. 21.

PA strategies are sensitive to the type of underlying genitive relations and the lexical verb classes involved and they feature in terms of how the referent of the possessed is marked.

The no possessed marking PA strategy applies to intransitive verbs of change-of-state only, as illustrated in ex. 3.

The locative marking strategy can apply to verbs from all of the above lexical classes with some restrictions: locative marking is allowed only in situations where the fact that actions were carried on possessed objects entail that these actions were carried on their possessors. As far as the affectedness of the possessor is concerned, the element marked with the locative marker can be dropped from the utterance without significantly affecting the meaning. Hence, it can be concluded that the locative marking serves the purpose specifying the locus of the action.

The indirect object marking strategy applies to all verbs from the above classes that do not allow locative marking, as illustrated in ex. 5.

PA constructions under the indirect object marking strategy are identical to applicative constructions in that they have the same form, both forms express affectedness, the argument frames of the verbs involved are increased by one.

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Attributive Modifiers in Taglennaa (Kordofan Nubian)

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1. Introduction

Taglennaa is spoken in the northern Nuba Mountains. It is part of the Kordofan Nubian[1] cluster comprising a group of closely related languages that are also known in the scientific literature as Hill Nubian[2] or by the corresponding German term "Bergnubisch"[3]; locally they are also referred to by the term "Ajang" languages. These languages are part of the Nubian family. According to Rilly's recent genetic language classification,[4] Nubian along with Taman of Darfur, Ama (Nyimang) of the Nuba Mountains, Nara of Eritrea, and the extinct Meroitic language forms the northern branch of Eastern Sudanic. Eastern Sudanic, in turn, is a primary branch of Nilo-Saharan.

In typological perspective, Taglennaa represents a verb-final language. While the subject noun phrase is unmarked for case (i.e. the nominative is zero-marked), the semanto-syntactic roles of other noun phrases are indicated by clitic case-markers, including =gɪ for the accusative, =kɔ for the instrumental, and =(V)r for the locative. That is, these dependent noun phrases are marked for case. Moreover, the subject is cross-referenced by person and number

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1 The term Kordofan Nubian (German "Kordofannubisch") is already used in Meinhof's *Eine Studienfahrt nach Kordofan* (chapter 10 "Die nubische Sprache"), p. 82, and in his "Sprachstudien im egyptischen Sudan," p. 258.

2 The term "Hill Nubian" is introduced in the MacDiarmids' article "The Languages of the Nuba Mountains." Stevenson continues to use this term in his PhD thesis "A Survey of the Phonetics and Grammatical Structure of the Nuba Mountain Languages." The term "Hill Nubian" is also used in Tucker & Bryan's grammatical sketch of the Nubian languages published in *Linguistic Analyses,* pp. 313-328.

3 The corresponding German term "Bergnubisch" is used in Kauczor's grammar of the Dilling dialect *Die bergnubische Sprache,* and Kauczor's wordlist of the Dilling language, "Bergnubisches Wörterverzeichnis."

4 Rilly, *Le méroïtique et sa famille linguistique.*

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suffixes on the finite verb. The subject-verb agreement represents head-marking because the subject requires certain inflectional suffixes to appear on the head of the clause, i.e. on the finite verb.[5] Thus, Taglennaa grammar is considered to be both head-marking and dependent marking on the clause level. We will come back to this point when drawing the conclusions at the end of this paper.

Taglennaa[6] is named after the village Tagle. To outsiders and in previous linguistic literature this village and the language is known by the term Kururu (also spelled Kororo).[7] The village is situated in the Six Mountains (Ar. *jibaal as-sitta*),[8] in the northeastern Nuba Mountains of Southern Kordofan, Sudan. Apart from Tagle/Kururu, there are five further villages in the Six Mountains, Kurtala, Dabatna, Koldegi (also spelt Kuldeji), Kadero (Kadaru), and Kafer. The languages spoken in these villages languages are said to be mutually intelligible.

The first linguistic study of Taglennaa, a phonological sketch, was published in 2007.[9] Further studies of Taglennaa comprise the comparative study "Structure of Ajang Verbs,"[10] as well as "Relative Clauses in Taglennaa (Kordofan Nubian),"[11] and "Converbs in Tagle (Kordofan Nubian)."[12] Moreover, in the present volume there is Gumma Ibrahim Gulfan's paper on "Possessor Ascension in Taglennaa."

All data for the present paper were provided by the first author who is a mother-tongue speaker of Taglennaa.[13]

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5 Nichols & Bickel, "Locus of Marking in the Clause."
6 The language name Taglennaa is composed of several morphemes. Two alternative morpheme analyses are proposed. The first one suggests that [taglɛnnaa] is composed of two possessive noun phrases, /taglɛ-n-ini-n-aa/, i.e. Tagle-GEN-people-GEN-language, literally "Tagle's people's language." However, this morpheme analysis, proposed by G. Ibrahim (p.c.), raises the question why /ini/ does not show any traces in the surface phonetic realization [taglɛnnaa]. The other analysis considers the fact that /taglɛnnaa/ is alternatively realized as [taglɛmmaa]. This pronunciation suggests the morpheme parsing /taglɛ-n-maa/, i.e. Tagle-GEN-language, where maa is interpreted as a reflex of Proto Kordofan Nubian *fai "language." The labial *f is usually lost in the Tagle language but probably retained here due to the "protected" word-medial position. We presume that *f is realized as labial nasal m due to the assimilation of the nasal feature of the preceding genitive marker n. This morphological analysis of /taglɛ-n-maa/, is supported by other Kordofan Nubian language names which have the same pattern, e.g. Warki-m-bee "Dilling language," Uɲcu-n-wee "Ghulfan language," and Kaak-n-ʃiɛ "Karko language."
7 Stevenson, "A Survey of the Phonetics and Grammatical Structure of the Nuba Mountain Languages," p. 113.
8 Abbreviations used: * – unattested; ADV – adverbializer; AM – attributive modifier; AN – agent noun; Ar. – (Sudanese) Arabic; CORR – correlation suffix; DIM – diminutive; INS – instrumental; INTENS – intensifier; N – noun; OJ – object; PL – plural; PLR – verbal plural; PTCP – participle; REL – relative clause marker; SG – singular; SGL – verbal singular; SJ – subject.
9 Ibrahim & Huttenga, "The Phoneme System of Tagle, a Kordofan Nubian Language."
10 Gulfan, "Structure of Ajang Verbs."
11 Ibrahim & Jakobi, "Relative Clauses in Taglennaa."
12 Gulfan, "Converbs in Tagle."
13 We wish to thank Gumma Ibrahim Gulfan and El-Kheir Hagar for checking the Taglennaa data and discussing them with us.

Our paper focuses on lexical items used as attributive modifiers (hereafter abbreviated as AMS, singular AM) of noun phrases. It is concerned with AMS that are characterized by specific syntactic, morphosyntactic, and semantic properties in Taglennaa.

1. AMS follow the head noun, i.e. the constituent order is N + AM (in English, by contrast, AMS precede the head noun, i.e. AM + N, e.g. "small child").
2. AMS agree in number with the head noun they modify (by contrast, English AMS - termed "adjectives" - do not agree in number with the head noun, e.g. "old tree / old trees.")
3. AMS render adjectival/property concepts, i.e. they denote more or less timestable properties/qualities of the referents of those head nouns.[14] AMS denoting male or female gender, for instance, render a completely timestable property.[15] By contrast, AMS such as "warm" or "pregnant" express transient properties which do not last for a long time.

Although the function of AMS is commonly associated with the notion "adjective" we will apply this term only to a small subgroup of AMS in Taglennaa whose morphological properties render this subgroup distinct from the other modifiers.[16] We suggest to apply the cover term "attributive modifiers" to all words that share the three features listed above. In spite of these shared features, AMS do not form a uniform class of grammatically homogeneous words but rather comprise six subsets defined by their morphological features and morphosyntactic behavior which will be described in more detail in the following sections. As briefly illustrated in table 1, these six groups include "true" adjectives, noun-like adjectives, quality verbs, participles, words designating gender and age, and agent nouns. Except for agent nouns and words denoting gender and age, AMS do not function as heads of noun phrases or arguments.

word class	example	gloss
"true" adjectives	kɔ̀ráŋ ʃíŋɛ́ spear.SG pointed.SG	sharp, pointed spear
noun-like adjectives	ʃíl–ì kɛ́n–ɛ̀ chief-PL good-PL	good chiefs
relative clauses	kāl ʊ́ʊ́–r asiida.SG be.warm.SG-REL	warm *asiida*[17]

Table 1. Classes of AMS

14 Note that our paper is neither concerned with attributive demonstratives and quantifiers nor with the predicative use of the lexical items that render adjectival/property concepts. Apart from lexical items expressing more or less timestable properties of the referents of noun phrases, Taglennaa also employs diminutive suffixes which serve as morphological means expressing such properties, see section 2 and 3.
15 See section 6.
16 See section 2.1
17 Sudan Arabic term ʕaṣiida denotes a stiff porridge made from sorghum or pennisetum (millet) flour.

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word class	example	gloss
participles	íd tī–àdù person.SG die-PTCP.SG	dead person
nouns expressing gender or age	ònù ídʊ́ donkey.SG woman.SG	female donkey
agentive nouns	bòl kàŋŋ–àr dog.SG hunter-AN.SG	hunting dog

The distinction of these six groups may not be immediately apparent from the glosses in table 1, since, except for the last example, the modifiers are all rendered by English adjectives. However, some examples show that the AMs have distinct morphological features. The suffix –r on ʊ́ʊ́–r "warm," for instance, marks relative clauses, the suffix –àdù on tī–àdù "dead" derives participles from verbs, and the suffix –àr on kàŋŋ–àr "hunter" derives agent nouns from verbs. These suffixes provide evidence of the fact that AMs in Taglennaa are encoded in distinct word classes (also known as "parts of speech"). As indicated in the second column of table 1, we claim that some AMs have noun-like properties, whereas other AMs rather behave like verbs.[18] In the following six sections we try to provide evidence of the semantic, phonological and morphological properties and the specific morphosyntactic behavior of each of these six types of AMs.

The fact that AMs are associated with distinct word classes – commonly either with nouns, adjectives or verbs – is well-known from typological studies. They suggest that the reason why AMs grammatically tend to behave either like nouns, adjectives or verbs is due to the difference in the prototypical meaning between these word classes. According to Wierzbicka,[19] nouns typically indicate "a kind of (person, thing, or whatever)," i.e. a categorization, a cluster of properties, while adjectives typically indicate single properties. Colors or sizes, for example, are most likely described by adjectives, but shapes like "round" or "square" tend to be conceived of as clusters of properties and therefore tend to be expressed by nouns.[20] Unlike nouns, adjectives may have morphological means for the expression of degree, such as "smaller," "smallest," "greenish." Also adjectives express more or less permanent states of affairs. Verbs, by contrast, typically denote temporary, transient states. This may be the reason why lexical items denoting physical properties like "hot" or "heavy" are most likely expressed by verbs rather than adjectives.

18 DIXON, "Adjective Classes in Typological Perspective," p. 1.
19 WIERZBICKA, "What's in a Noun?," p. 359.
20 Ibid., p. 366. The fact that Taglennaa "round, coiled" is expressed by the participle kààr–àdù does not contradict Wierzbicka's hypothesis since participles have noun-like characteristics, e.g. participles take singular and plural replacive suffixes. A lexical item rendering the meaning "square" is not attested in Taglennaa.

This is true for Taglennaa, too. Thus, there tends to be a correlation between the prototypical meaning of a specific word class, the lexical items that are associated with that class, and their grammatical behavior or form.[21] However, the assignment of AMS sharing specific semantic properties (dimension, color, etc.) to a specific word class is not predictable, as we will see.

2. Adjectives

The question of whether every language has a distinct adjective class is contested. Sasse, for instance, maintains that "a class of adjectives cannot be made out in all languages."[22] Dixon, by contrast, claims "that an adjective class can be recognized for every language, although sometimes the criteria for distinguishing adjectives from nouns, or adjectives from verbs, are rather subtle."[23] The properties of the class of adjectives are particular to each language, i.e. in some languages this class may be small, in others large, in some languages the adjective class may be open, in others closed. In Taglennaa, as we will show, there is a very small and closed class of true adjectives (see below), and a large and open class of noun-like adjectives into which even borrowings from Arabic are incorporated, see section 3.

No matter how large or small an adjective class is, according to Dixon, it is typically associated with four core semantic types, dimension ("big," "long," "tall," "wide," etc.), age ("new," "young," etc.), value ("good," bad," etc.), and color ("black," "white," etc.).[24] By contrast, peripheral semantic types expressing physical properties ("warm," "hard," "heavy," etc.), human propensity ("angry," "happy"), and speed ("slow," "fast") are associated with large adjective classes. Otherwise, in the absence of a large adjective class, these peripheral, these peripheral semantic types tend to be expressed by nouns or verbs rather than by adjectives.

As for Taglennaa, we claim that a very small closed class of "true" adjectives can be identified due to their specific morphological features that are not found in other word classes. One common feature shared by these adjectives is that they end in -ɛ both in their singular and plural form, see table 2 and 3. So these final vowels cannot serve as a number marker distinguishing these forms. Rather, number is either solely marked by tonal contrast, as shown in table 2, or by tonal contrast combined with the alternation of the root vowel, as seen in table 3.

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21 Ibid., p. 381.
22 Sᴀssᴇ, "Syntactic Phenomena in the World's Languages I," p. 661.
23 Dɪxᴏɴ, "Adjective Classes in Typological Perspective," p. 1.
24 Ibid, p. 3.

Table 2.
Tonal
contrast as
sole number
marking
device

SG/PL	gloss
ájὲ / àjɛ́	wide
ʈɔ́lɛ̀ / ʈɔ̀lɛ́	deep
ʃíŋɛ́ / ʃĩŋɛ́	sharp, pointed, peaked

Table 3.
Tonal
contrast
plus
alteration
of the root
vowel

SG/PL	gloss
kɛ́lɛ̀ / kɩ̀lɛ́	red
ʈɛ́jɛ̀ / ʈɩ̀jɛ́; ʈɩ̀jɛ̀[25]	green; unripe, uncooked, immature

The alternation of root vowels is also attested on many verbs and some nouns. On nouns, however, the vowel alternations are commonly triggered by the plural suffix –ɪ (~–i),[26] for instance, tɛ̂r / tɩ̀r–ɩ̀ "girl" and óddú (< *óg–dú) / ég–í "goat." However, these alternations differ from those attested by kɛ́lɛ̀ / kɩ̀lɛ́ and ʈɛ́jɛ̀ / ʈɩ̀jɛ́; ʈɩ̀jɛ̀ whose final vowel in the plural forms is realized as ɛ rather than ɪ. On verbs, root vowel alternations occur in several patterns associated with verbal number, for instance:

▸ ɪ / ɛ as in jír– / jɛ́r– "lie, lie down (SG SJ/PL SJ)," tíg–ír– / tɛ́g–ɛ́r– "wear (SG OJ/PL OJ)";
▸ ɪ / ɛ as in ʈɩ̀y– / ʈɛ́y– "keep standing (SG SJ/PL SJ)";
▸ ʊ / o as attested in ʃʊ̀g–ír– / ʃòg–èr– "take up, carry (SG OJ/PL OJ)"; and
▸ ʊ / ɔ as attested in ʃʊ́ŋ–k– / ʃɔ́ŋ–k– "dry (SG SJ/PL SJ)."

Due to the similarity between the vowel alternations attested in these verbs and in the adjectives kɛ́lɛ̀ / kɩ̀lɛ́ and ʈɛ́jɛ̀ / ʈɩ̀jɛ́; ʈɩ̀jɛ, these items may be said to have verb-like rather than noun-like phonological features. The motivation for the vowel alternations in these adjectives and in the verbs addressed in this section is yet unclear.

In respect to the range of meanings expected to be attested in the two closed adjective subclasses illustrated in table 2 and 3, the adjectives denoting dimensions ("wide" and "deep"), value ("bad") and color ("red" and "green") corroborate Dixon's claim that the adjective class is typically associated with these semantic notions. However, the fact that the small closed class of Taglennaa adjectives contains ʃíŋɛ́ / ʃĩŋɛ́ denoting the physical property "sharp, pointed" provides counter evidence to his claim that this semantic type is associated with a large adjective class.

The number agreement between the head noun and the adjective and the position of the attributive adjective after the noun are briefly illustrated in exx. 1 and 2.

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25 Two morphologically and semantically distinct plural forms are also attested on several noun-like adjectives, see table 4 and 5.

26 Due to vowel harmony determined by the ATR feature of the root vowel, syllabic Taglennaa suffixes have two allomorphs, a [+ATR] and a [–ATR] one.

ṭɔ́ŋ   ájɛ̀   1
calabash.sg wide.sg
"wide calabash"

úr–ání kìlɛ́   2
head-pl red.pl   195
"red heads"

As for the expression of high degree, attributive adjectives use either phonological, morphological or lexical means including the lengthening of the intervocalic consonant, as seen in ex. 3, the repetition of the adjective (ex. 4), or the combination of these two means (ex. 5). Moreover, high degree may be expressed by the intensifiers ájjɛ́-n, ájjɛ́-n-kɔ̀, and úggù-n-kɔ̀. These intensifiers are derived by the adverbializers –n and –n-kɔ̀[27] from the intensive forms of the adjectives ájjɛ̀ "very wide" and úggùr "very big" (exx. 6 and 7), i.e. they are based on AMs with a dimensional meaning. By contrast, the intensifiers used with participles are associated with aspectual notions, as seen in section 5. All intensifiers (glossed as INTENS) precede the adjective they modify.

▸ Lengthening of the intervocalic consonant   3
   ʃáál   ájjɛ̀
   compound.sg very.wide.sg
   "very wide compound"

▸ Reduplication of the adjective   4
   ʃáál   ájɛ̀   ájɛ̀
   compound.sg wide.sg wide.sg
   "very wide compounds"

▸ Lengthening of intervocalic consonant, repetition of adjective   5
   ʃáál   ájjɛ̀   ájjɛ̀
   compound.sg very.wide.pl very.wide.pl
   "extremely wide compound"

▸ Use of adjective with intensifier   6
   kél–ì   ájjɛ́n   àjɛ́
   house-pl INTENS.ADV wide.pl
   "very wide houses"

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27 The suffix –kɔ̀ is the instrumental case marker which also marks some adverbial expressions. It is presently unclear whether the suffix –n on ájjɛ́–n–kɔ̀, and úggù–n–kɔ̀ is identical to the adverbializer –n on ájjɛ́–n, or whether it is simply a linker connecting –kɔ̀ with ájjɛ́– and úggù–, respectively.

7   kɪ̀–nɪ̀   úggùnkɔ̀   kɪ̀lɛ́
       garment-PL INTENS.INS red.PL
       "very red garments"

The diminished or reduced degree of a property attributed by an adjective is either morphologically expressed by diminutive suffixes or by lexical means using the adverbial wàttà–kɔ̀ "a little bit," "slightly" which is derived by the adverbializer –kɔ̀ from the quantifier wàttà "little, few" which is also used in the diminutive form wàttà–nú. The diminutive suffixes –ndʊ (SG), -nɪ (PL) (and their allomorphs) are attached both to the singular or plural form of the head noun and to the singular or plural form of the AM, respectively. For this reason both the head noun and the AM are doubly marked for number, as illustrated in exx. 8 and 9.

8   kù–dú–nù   ʃíŋ–ɛ́–nʊ̀
       hill-SG-DIM.SG peaked-SG-DIM.SG
       "a slightly peaked hill"

The noun "urine" in ex. 9 is inherently plural. When taking diminutive suffixes it is doubly marked for plural and – due to number agreement – the AM, too.

9   ékk–é–nì   wàttàkɔ̀ kɪ̀lɛ́–nì
       urine-PL-DIM.PL little.INS red.PL-DIM.PL
       "slightly red urine"

The expression of degree may be associated with a comparison of qualities. This is lexically expressed by the transitive verb éɲ–í–kɔ̀ / éɲ–é–kɔ̀ "surpass, exceed" appearing in the same-subject converb form. It takes either an –i or –e suffix reflecting the singular or plural object, respectively. The final suffix -kɔ̀ is the instrumental case marker indicating simultaneousness when attached to a verb.[28]

10   kɪ̀–tʊ̀   úŋʊ́–ní kɪ̀–nɪ̀=gɪ̀   éɲ–é–kɔ̀   kɛ́lɛ̀–nɪ̀
       cloth-SG this-COP cloth-PL=ACC exceed-SSC.PLR-INS red.SG-COP
       "This garment is redder than any other garments (lit. This garment is red surpassing [any other] garments)"

Ex. 10 shows that in comparative constructions the lexical item expressing the gradable property is no longer used as AM but rather shifted to the predicate position and marked by the copula.

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28 GULFAN, "Converbs in Taglennaa," pp. 374-75.

3. Noun-like adjectives

Noun-like adjectives share some morphological characteristics with nouns. The number-marking patterns and suffixes are similar or even identical to those of nouns. Often these suffixes are combined with tonal contrast. As illustrated in table 4 and 5, there are two

basic patterns for number marking on noun-like adjectives, i) the use of plural suffixes (the singular forms being unmarked), and ii) a replacive pattern which involves singular and plural suffixes replacing each other. These two patterns are attested on nouns, too. However, singulative marking – a third pattern attested on Taglennaa nouns – is absent from noun-like adjectives in Taglennaa.[29]

As shown in table 4, there are five plural suffixes attested on noun-like adjectives, –ɪ, –ɛ, –V–ɲɪ́, –dú, and –íl. The suffixes –ɪ and –ɛ are attached to the unmarked consonant-final singular form of ᴀᴍs. They are also attested on nouns, e.g. kùl / kùl–ì "well" and bìdíl / bìdíl–ê "bat." The –ɪ suffix is, in fact, the most frequent plural suffix on nouns.

Unlike the plural suffixes –ɪ and –ɛ, the suffix –V–ɲɪ́ is attached to a marked singular form whose vowel-suffix –V is not replaced but rather retained. The resulting morphologically complex number suffix –V–ɲɪ́ suffix is therefore considered to be composed of a singular and plural morpheme.[30] It is attested both on noun-like adjectives (see table 4) and nouns, e.g. ʃúl–á / ʃúl–á–ɲɪ́ "roof." The suffix –V–ɲɪ́ is associated with a high tone pattern.

The high-tone plural suffix –ndú is attested on consonant-final ᴀᴍs (including a borrowing from Arabic) and also on nouns. When the root ends in the lateral l the nasal of –ndú is deleted, e.g. bórùl / bórúl–dú "jackal" but the nasal is retained after other consonants, e.g. ŋér / ŋér–ndú "placenta."

The high-tone plural suffix –íl is attested on consonant-final ᴀᴍs (including borrowings from Arabic), the singular form being unmarked. However, on nouns, –íl is attested as a replacive plural suffix, e.g. ʃàl–ɛ̀ / ʃál–íl "Acacia sp.," bícc–ù / bícc–íl "mat," and kàt–ù / kát–íl "field." The distinct distribution of -íl on nouns and ᴀᴍs is another indication of the subtle difference between these word classes.

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29 According to Dɪᴍᴍᴇɴᴅᴀᴀʟ's seminal paper "Number Marking and Noun Categorization in Nilo-Saharan Languages," there are three basic number marking patterns, singulative marking, plural marking and a replacement pattern. They are widely attested in many Nilo-Saharan languages, including the Kordofan Nubian languages, as attested in Karko (Jᴀᴋᴏʙɪ & Hᴀᴍᴅᴀɴ, this volume) and Taglennaa (Iʙʀᴀʜɪᴍ & Jᴀᴋᴏʙɪ, in preparation).

30 This analysis of the somewhat surprising morphological composition is suggested because roots are commonly monosyllabic. So the final vowel V is conceived of as a suffix rather than as a part of the root.

Some noun-like adjectives have more than one plural form.[31] This is another feature they share with nouns, e.g. dùl / dùl–ì, dúl–í–ɲí "granary" and ʃâl / ʃâl–ì, ʃâl–dí, ʃâl–dú "compound." In table 4, there are noun-like adjectives with two alternative plural forms, e.g. kúgúl–í, kúgúl–dú and dátt–á–ɲí, dátt–íl. Two plural forms are also attested on the borrowings jùhál–é, jáhíl–dú[32] and kùbár–é, kùbár–íl. There appears to be no semantic difference between the plural forms of these items. This is, however, not true for the two plural forms of wólj–é and wōlj–é, see table 5. These forms are only distinguished by their tone patterns, high-high versus mid-high. The selection between these two plural forms appears to be semantically motivated. The form wólj–é is used as AM of count nouns, e.g. ìʃí wóljé "weak hands," whereas wōlj–é is used as AM of mass nouns, e.g. ŋàlɛ̀ wōljé "weak (type of) dough."

Table 4.
Plural
suffixes on
noun-like
adjectives

suffix	SG / PL	gloss
–ɪ ~ i	ɛ́r / ɛ́r–í	new
–ɪ ~ i	ʃàâl / ʃàâl–ì	transparent
–ɪ ~ i	úgùr / úgúr–î	big, large
–ɪ ~ i	kúgúl / kúgúl–í, kúgúl–dú	brave
–ɛ ~ e	ŋʊ̃r / ŋʊ̄r–ɛ̂	big, old
–ɛ ~ e	kɛ̄n / kɛ́n–ɛ̀	good, fine
–ɛ ~ e	jáhìl / jùhál–é, jáhíl–dú (Ar.)	ignorant, immature
–ɛ ~ e	kùbár / kùbár–é, kùbár–íl, kùbàrád–é[31] (Ar.)	big, important
–V–ɲɪ́ ~ V–ɲí	ʃɛ̀r–ɛ̀ / ʃɛ́r–ɛ́–ɲí	short
–V–ɲɪ́ ~ V–ɲí	dàtt–à / dátt–á–ɲí, dátt–íl	shallow
–V–ɲɪ́ ~ V–ɲí	ʈʊ̀r–à / ʈúr–á–ɲí	old
–ndú	ʃàâl / ʃàâl–dú	transparent
–ndú	kír / kín–ndú	thick, dense
–ndú	jáhìl / jáhíl–dú, jùhál–é (Ar.)	ignorant, immature
–íl	dàtt–à / dátt–íl, dátt–á–ɲí	shallow
–íl	kùbár / kùbár–íl, kùbár–é (Ar.)	big, important

The replacive pattern is illustrated in table 5. The singular/plural suffixes –i / –e are solely attested on noun-like adjectives and thus provide evidence of the morphologically very subtle difference between adjectives and nouns. By contrast, the singular/plural suffixes –ʊ / –ɪ and the diminutive suffixes –ndʊ / –nɪ, are attested both on

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31 In the following examples, singular and plural forms are separated by a slash. Alternative plural forms are separated by a comma.

32 Apart from having different plural suffixes, the borrowings jùhál–é and jáhíl–dú additionally reflect the vowel patterns of the donor language, Sudanese Arabic.

33 The Arabic female plural form *kubaraat* represents the source for the Taglennaa plural form kùbàrád–é. It is used for both genders, male and female.

nouns, e.g. kùgg-ʊ́ / kùgg-íí "crow" and ònù-nú / ónú-ɲí-ní "small donkey," and also on noun-like adjectives, see table 5.

suffix	SG / PL	gloss	
–ɪ / –ɛ	úr–ì / úr–é	black	Table 5. Replacive suffixes on noun-like adjectives
–ɪ / –ɛ	ér–í / èr–é	white	199
–ɪ / –ɛ	ʃír–ì / ʃír–é	dirty, grey	
–ɪ / –ɛ	ɖéj–í / ɖēj–é	long, tall, high	
–ɪ / –ɛ	ŋéɲ–í / ŋēŋ–é	fat, thick	
–ɪ / –ɛ	étt–ì / étt–é	wet, soft	
–ɪ / –ɛ	kéɲ–ì / kèɲ–é	coarse, harsh, rough	
–ɪ / –ɛ	téɲ–ì / tèɲ–é	thick, stiff, heavy	
–ɪ / –ɛ	wólj–ì / wólj–é, wōlj–é	loose, bland, weak	
–ɪ / –ɛ	ɖʊ́r–�̀ɪ / ɖʊ́r–ɛ́	fine, smooth	
–ʊ / –ɪ	ɖùkk–ù / ɖùkk–î	blunt, not pointed, hornless	
–ʊ / –ɪ	ŋɔ́cc–ʊ́ / ŋócc–í[32]	old [only used for women]	
–ʊ / –ɪ	tún–ù / tún–ú; tún–î	blind; blind, new, unopened	
–ʊ / –ɪ	ʈógg–ú / ʈógg–î	deaf	
–ndʊ / –nɪ	ŋʊ́l–dʊ̀ / ŋʊ̌l–dì	big, old	
–ndʊ / –nɪ	díɣáá–nʊ̀ / díɣáá–nɪ̀	small	

The noun-like adjectives listed in table 4 and 5 are not restricted to the four core semantic types, dimension ("big, large," "short," "shallow," "long, tall, high"), age ("new," "old," "old (woman)," "big, old"), color ("white," "black"), and value ("good, fine"). As expected, the group of noun-like adjectives also comprises several lexical items denoting physical properties which are usually considered to represent peripheral semantic types ("fat, thick," "stiff, heavy," "wet, soft," "coarse, harsh, rough," "fine, smooth," "loose, bland, weak").

There is number agreement between head nouns and noun-like adjectives. Also the head noun precedes the modifier, as briefly illustrated in exx. 11 and 12 using just one noun-like adjective from table 4 and 5, respectively.

kēl   έr   11
house.SG new.SG
"new house"

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34 The noun-like adjective ŋɔ́cc–ʊ́ / ŋócc–í "old" is restricted to modify the noun ídʊ́ / ílí "woman." As it cannot be used as a head noun, it is not part of the AMS denoting gender and age that are discussed in section 6.

12   kél–ì   ŋŏl–dì
         house-PL big.PL-DIM.PL
         "big houses"

Like the true adjectives discussed in section 2, noun-like adjectives express a high degree of the property either by phonological, morphological or lexical means, i.e. by lengthening the intervocalic or even syllable-final consonant, as seen in exx. 13 and 14, lengthening the root vowel (ex. 15), reduplication of the lexical item (ex. 16), or by using an adverbial intensifier (exx. 17 to 19). Some noun-like adjectives can express intensity in two ways, either by lengthening the root vowel or by lengthening the first intervocalic consonant, e.g. ʃíírì or ʃírrì "very dirty (SG)," éérí / èèré or érrí / èrré "very white (SG / PL)," and kɔ́ɔ́r–àdʊ̀ / kɔ́ɔ́r–ànì̀, kɔ́rr–àdʊ̀ / kɔ́rr–ànì̀ "very yellow (SG / PL)."

▸ Lengthening of the intervocalic consonant

13   kúl   dàtttà[35]
         well.SG very.shallow.SG
         "very shallow well"

▸ Lengthening the syllable-final consonant

14   kél–ì   ŋŏll–dì
         house-PL very.big.PL-DIM.PL
         "very big houses"

▸ Lengthening the vowel of the root

15   kàr–ɛ̀   ɖúúr–ɛ́
         flour-PL very.fine-PL
         "very fine flour"

▸ Reduplication of the noun-like adjective

16   ínì   ʃɛ́r–ɛ́–ɲí   ʃɛ́r–ɛ́–ɲí
         person.PL short-SG-PL short-SG-PL
         "very short people"

▸ The adverbial intensifier plus noun-like adjective

17   kél–ì   ájjɛ́n   ŋŏl–dì
         house-PL INTENS.ADV big.PL-DIM.PL
         "very big houses"

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35 This item originates in the CVCCV-shaped AM dàrtà. Due to assimilation of rt to tt and the lengthening of these consonants, the intensified form is realized by an extra long t as [dattta].

íyà ájjénkɔ̀ ḍéj–í   18
neck.SG INTENS.INS long-SG
"very long neck"

kél úggùnkɔ̀ ŋúl–dʊ̀   19
house.SG INTENS.INS big.SG-DIM.SG   201
"very big house"

Some noun-like adjectives are always used in their intensive form marked by the lengthened intervocalic consonant, e.g. étt–ì / étt–é "wet, soft." (However, the geminate kk in ḍùkk–ù / ḍùkk–î "blunt, not pointed, hornless" is a realization of rk in ḍùrkù / ḍùrkî, as attested in Dabatna, a neighboring Kordofan Nubian language.) Some noun-like adjectives always appear with the diminutive suffix, e.g. ŋúl–dʊ̀ / ŋŏl–dì "big"[36] and díyáá–nʊ̀ / díyáá–nɪ̀ "small." The basic form of díyáá–nʊ̀ / díyáá–nɪ̀ without the diminutive suffix is not attested. The diminutive suffixes on these noun-like adjectives appear to be lexicalized, they do not co-occur with diminutive suffixes on the head noun of a noun phrase, as seen in exx. 17 and 19.

 The reduced degree of the property denoted by noun-like adjectives is either expressed by diminutive suffixes – additionally intensified by lengthening the syllable-final consonant – as seen in ex. 20, or by the intensifier wàttà–kɔ̀, as in ex. 21. These means are the same as those employed for true adjectives.

íd ʃɛ̀rɛ̀–nndú   20
person.SG short-INTENS.DIM.SG
"very short person"

éénà wàttàkɔ̀ kéɲ–ì   21
soil.SG little.INS rough-SG
"slightly rough soil"

When a property denoted by a noun-like adjective is associated with a comparison of degree it is expressed by the converb éɲ–í–kɔ̀ / éɲ–é–kɔ which precedes the noun-like adjective, see ex. 22.

ʃíl ànná ùnná–gí éɲ–í–kɔ̀ kɛ́n–ndɪ 22
leader.SG our your.PL-ACC exceed-SSC.SGL-INS good.SG-COP
"Our leader is better than yours"

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36 The noun-like adjective, ŋúl–dʊ̀ / ŋŏl–dì "big" is derived by diminutive suffixes from ŋúr / ŋúr–ɛ̂.

4. AMS expressed by relative clauses

Relative clauses based on "quality verbs"[37] offer another possibility to express AMS. We prefer the term quality verbs to "stative verbs" because quality verbs often denote physical properties, human propensities, or speed. These properties may be conceived of as changing over time, rather than being static. This is probably the reason why such transient properties are expressed by verbs rather than by adjectives or nouns.[38]

When quality verbs are employed as AMS they are inflected for present tense,[39] number, and 3rd person. Additionally they are marked by the relative clause marker –r.[40] Some verbs take the inflectional suffix –(u)n both in the 3rd person singular and plural form, others take –(u)n in the singular form and –(e)n in the plural form.[41] The vowel of –un or –en is required when preceded by a consonant, e.g. kɔyɛ́ íɲɲ–ùn "the meat is delicious." The vowel of –un or –en is deleted when it is preceded by a vowel, e.g. ótù ɔ́ɔ́–n "the water is warm." The final nasal of the inflectional suffixes –(u)n and –(e)n is deleted when the relative clause marker –r is attached.

Relative clauses based on quality verbs follow the noun they modify and agree in number with it. The singular and plural forms of these relative clauses are often distinguished by tonal contrast, as seen when comparing exx. 23 to 24 and exx. 25 to 26, but vowel alternation with verbal number marking function is attested in these relative clauses, too, as seen in exx. 27 and 28, and in ŋáár / ŋɛ́ɛ́r in table 6.

23   kɔ̀yɛ̀   íɲɲ–ù–r
         meat.SG be.sweet-3SG-REL
         "delicious meat"

24   ótù   ìɲɲ–û–r
         water.PL be.sweet-3PL-REL
         "sweet water"

25   tʊ̀ʊ̀–nʊ́   ʈílɖ–ù–r
         child.SG-DIM.SG be.heavy-3SG-REL
         "heavy child"

37 The term "quality verb" is adopted from ELDERS, TRÖBS & METTOUCHI's "Questionnaire for quality verbs in African languages.
38 See the discussion of prototypical verbs in Section 1.
39 "Present tense" is a preliminary term for a suffix which may turn out as imperfective aspect marker.
40 IBRAHIM & JAKOBI, "The relative clause in Taglennaa."
41 The choice between -un and –en needs further research.

ór–ì   ṭìlḍ–û–r   26
log-PL   be.heavy-3PL-REL
"heavy logs"

Nouns denoting substances are often not overtly marked for number. They are inherently either singular or plural, as can be seen from their modifiers which take a singular or plural form, see exx. 23, 24, 27, and 28.

kàl   úú–r   27
asiida.SG be.warm.SG-REL
"warm *asiida*"

ótù   ɔ́ɔ́–r   28
water.PL be.warm.PL-REL
"warm water"

íd   kéɲ–ʃ–ù–r   29
person.SG   sad-PLr-3SG-REL
"sad person"

Further examples of quality verbs quoted in their 3rd person singular and plural relative clause form are provided in table 6. They share one semantic feature: They do not express properties associated with Dixon's four core semantic types, dimension, age, value, and color.[42] Rather, with the exception of "different" and "sad," most of the quality verbs denote physical characteristics being conceived of as transient states. They confirm Wierzbicka's view that such properties tend to be expressed by verbs rather than nouns.

3SG	3PL	gloss
án–ù–r	àn–û–r	alive
íŋ–ù–r	ìŋ–û–r	different
íjj–ú–r	íjj–é–r[41]	nasty smelling
úgg–ù–r < *úrg–ù–r	ùgg–û–r	cold
ṭíld–ù–r	ṭìld–û–r	heavy, slow
búùr < *búr–ù–r	bùûr < *bùr–û–r	hard, strong, difficult
ŋáàr < *ŋár–ù–r	ŋàâr < *ŋàr–û–r	salty, bitter, sour
ŋáá–r	ŋ́ɛ́ɛ́–r	fast
ʃígg–ú–r < *ʃírg–ú–r	ʃígg–é–r	unpleasantly smelling
tééník–ú–r	tééník–ɛ́–r	viscous
kùlʃ–ú–r	kùlʃ–ɛ́–r	flexible, bending

Table 6. Some quality verbs in relative clause form

42 Dixon, "Adjective Classes in Typological Perspective," p. 3.
43 The quality verb íjj- always has a geminate consonant.

3SG	3PL	gloss
kúyík–ú–r	kúyík–é–r	scented
ʃálʃ–ù–r	ʃálʃ–ɛ́–r	glittering
kɛ́tɪ̀g–ù–r	kɛ̀tɪ̀g–û–r	shaking
ŋɛ́tɪ́g–ú–r	ŋɛ́tɪ́g–ɛ́–r	bending
ʃākk–ú–r < *ʃārk–ú–r	ʃākk–ɛ̂–r	fearful, afraid

AMS encoded in relative clauses can express a high degree of a certain property either by repetition, see exx. 30 and 31, or by using an intensifier preceding the relative clause, see exx. 32 and 33.

30   ìʃí   ʃígg–é–r   ʃígg–é–r
      hand.PL unpleasant.smell-PLR-REL unpleasant.smell-PLR-REL
      "very unpleasantly smelling hands"

31   ótù   ɔ́ɔ́–r   ɔ́ɔ́–r
      water.PL hot.PLR-REL hot.PLR-REL
      "very hot water"

32   kèèdá   ájjɛ́nkɔ̀   búù–r
      bone.SG INTENS.INS hard.SGL-REL
      "very hard bone"

33   ínì   úggùnkɔ̀   ɪ̀ŋ–û–r
      people   INTENS.INS different-PLR-REL
      "very different people"

The reduced or diminished degree of a property is expressed by adding the adverbial intensifier wàttà-kɔ̀ which precedes the relative clause.

34   kàl   wàttàkɔ̀   úú–r
      asiida.SG little.INS be.warm.SGL-REL
      "slightly warm *asiida*"

AMS expressed by quality verbs and encoded in relative clause forms may be employed to compare degrees of properties, as seen in exx. 35 and 36. Like exx. 10 and 22, these constructions involve the same-subject converb form of the verb "exceed, surpass."

35   tùù–nú   úŋù íntàn–gɪ̀
      boy.SG-DIM.SG this brother.SG-ACC
      éŋ–í–kɔ̀   ṭílḍ–ù–r
      exceed-SSC.SGL-INS heavy-3SG-REL
      "this child who is heavier than his brother …"

ónú–ɲí   íɲì   tí–gí   éɲ–é–kɔ̀   36
donkey-PL these those-ACC exceed-SSC.PLR-INS
ŋɛ́ɛ́–ndí–r
walk.PLR-NEG.3PL-REL
"These donkeys which are not faster than those ..."

Thus, when AMs are encoded by relative clauses and when they are
employed to express a high(er) or low(er) degree of a certain prop-
erty they grammatically behave like true adjectives and noun-like
adjectives.

5. Participles

AMs are also often encoded in participles. Participles have both verb-
like and noun-like properties. They resemble nouns as they mark
number by replacive suffixes involving the low tone singular suffix
–àdù and the low tone plural suffix –ànì. Participles are based on
verb stems but they do not take inflectional morphemes reflecting
person, number, and tense. However, they often take derivational
suffixes, e.g. the causative morpheme with its various allomorphs
–ìg, –k, –ŋk, –c, as attested in exx. 38, 39, 40, and 41, respectively.

íkà   ʈì–àdù   37
fire.SG die-PTCP.SG
"extinct fire"

íkà   ʈì–ìg–àdù   38
fire.SG die-CAUS-PTCP.SG
"extinguished fire"

ór   ʃúŋ–k–ádù   39
wood.SG be.dry-CAUS-PTCP.SG
"dried wood"

kí–tú   èt–ìŋk–àdù   40
door-SG close-CAUS-PTCP.SG
"closed door"

túr–í–ɲí ɛ̀ɲ–c–ànì   41
pot-SG-PL be.filled-CAUS-PTCP.PL
"filled pots"

The high degree of a property encoded in a participle is expressed
by adverbial intensifiers preceding the participle. They are marked

by the low tone adverbializer suffix –ɔ̀n, as attested in bàll–ɔ̀n (ex. 42), ɖ̀ɪ̀bɪ̀ll–ɔ̀n (ex. 43), and ŋɛ̀cc–ɔ̀n (ex. 44). This suffix is obviously associated with aspectual notions. The selection of one of the various intensifiers appears to be lexically determined by the participle.

<table>
<tr><td>206</td><td>42</td><td>tùr–í</td><td>bàllɔ̀n</td><td>ɛ̀ŋ–c–àdù</td></tr>
<tr><td></td><td></td><td>pot-SG</td><td>INTENS.ADV</td><td>fill-CAUS-PTCP.SG</td></tr>
</table>

"almost completely filled pot"

43 kàlɖɔ́ŋ   ɖ̀ɪ̀bɪ̀llɔ̀n   kɔ̀y–àdù
    asiida.GEN.gourd INTENS.ADV pile.up-PTCP.SG
    "gourd with highly piled up *asiida*"

44 tùr–í   ŋɛ̀ccɔ̀n   tóó–r   ùj–ìŋk–àdù
    pot-SG INTENS.ADV ground-LOC put-CAUS-PTCP.SG
    "pot put exactly on the ground"

The low degree of a property encoded in a participle may be expressed by adding a relative clause based on the negated copula, compare ex. 45 to 42.

45 tùr–í   ɛ̀ŋ–c–àdù   mí–dì–r
    pot-SG fill-CAUS-PTCP.SG   NEG-COP.3-REL
    "incompletely filled pot (lit. a pot which is not filled)"

6. Nouns denoting gender and age

Taglennaa has two nouns denoting gender, kʊ̀t-tʊ̀ / kʊ̀r-ʊ̀ "man, male" and ídʊ́ / ílí "woman, female." Furthermore there are a number of nouns denoting both gender and age, such as têr / tìr–ì "girl, young female," tʊ̀ʊ̀-nʊ̂ / tíí-nì "young boy, child," kɛ̀jír / kɛ̀jír–ì "young man" and kɔ̀ʃɪr / kɔ̀ʃɪr–ì "old man." All these nouns can be used either as AMS, see exx. 46, 48, 50, and 52, or as heads of noun phrases, see exx. 47, 49, and 51. As AMS they follow their head noun and agree in number with that head noun. Some of these nouns exhibit number markers typical of nouns, such as the singular marker –tʊ̀ in kʊ̀t-tʊ̀ (ex. 46). As this suffix, which may also be employed as singulative suffix, is not attested on noun-like adjectives[44] it suggests that AMS denoting gender and age are nouns rather than noun-like adjectives.

46 òn–ù   kʊ̀t-tʊ̀
    donkey-SG   man-SG
    "male donkey"

[44] See section 3.

kùt-tù   kɛ̄n   47
man-sɢ good.sɢ
"good man"

túd-àn⁴⁵   tɛ̂r   48
child-ᴄᴏʀʀ.sɢ   girl.sɢ
"daughter"

tɛ́r   kɔ̀ɲɛ̀   kɔ̀ɲɛ̀   49
girl.sɢ beautiful.sɢ beautiful.sɢ
"very beautiful girl"

ínt-àn   tʊ̀ʊ̀-nʊ̂   50
sibling-ᴄᴏʀʀ.sɢ   boy.sɢ-ᴅɪᴍ.sɢ
"little brother"

tʊ̀ʊ̀-nʊ́   kùt-tù-nʊ̂   51
child.sɢ-ᴅɪᴍ.sɢ man-sɢ-ᴅɪᴍ.sɢ
"young boy"

As seen in ex. 52 and 53, nouns denoting gender can take an ᴀᴍ denoting gender and age. So in these noun phrases gender is doubly expressed by lexical means.

kúr-ʊ́   kɔ̀ʃɪr-ì̀   52
man-ᴘʟ old.man-ᴘʟ
"old men"

í-dʊ́   tɛ̂r   53
woman-sɢ girl.sɢ
"young woman"

Nouns expressing gender (kùt-tù "man, male," í-dʊ́ "woman, female") are conceived of as expressing timestable rather than transient properties. Therefore, when employed as ᴀᴍs, they are not used with intensifiers such as ájjɛ́n or wàttà-kɔ̀. However, nouns expressing both gender and age (tɛ̂r "girl," kɔ̀ʃɪr "old man," tʊ̀ʊ̀-nʊ̂ "boy") have two semantic components, i) gender, which represents a timestable property, and ii) age representing a property which is conceived of as changing over time. For this reason, only this

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45 The suffix -an (sɢ), - aan (ᴘʟ) is attested on many terms of social relationship (including kinship terms). As shown in Jᴀᴋᴏʙɪ, "Nubian Kinship Terms," this suffix has cognates in other Nubian languages, such as Birgid and Midob. Following Kᴀᴜᴄᴢᴏʀ, *Die bergnubische Sprache*, who coined the German term "Korrelationsendung," we suggest the term "correlation suffix," abbreviated ᴄᴏʀʀ.

changeable property is gradable, being modified by adverbials expressing aspectual notions, such as bàll–ɔ̀n "almost completely" and ɛ́l–túr–n "still," "not yet."

54   kúr–ʊ́   bàllɔ̀n   kɔ̀ʃɪr–ɪ̀
      man-PL almost.completely.ADV old.man-PL
      "almost old men"

55   ídʊ̌   ɛ́ltúrn   té–ndʊ̀
      woman.SG not.yet.ADV girl-DIM.SG
      "a yet immature woman"

Note that noun phrases constructed of noun plus noun are admitted only when the second (modifying) noun either designates gender and age[46] or when it represents an agent noun. Such noun phrases differ from noun plus noun constructions representing possessive noun phrases in which the possessor (dependent) being marked by the genitive clitic =n precedes the possessed (head), as attested in àccɛ̀=n ɛ̂n "mother of twins," lit. "twins' mother."

7. Agent nouns

Apart from words denoting gender or age, agent nouns can be used both as AMs of noun phrases but also as heads of noun phrases. Agent nouns are derived from verbs by the suffix –àr and by assigning a low tone pattern to the agent noun, e.g. tìr–àr "farmer," àn–àr "dancer," ìtìg–àr "quarreler." They are inherently singular and take the low tone plural suffix –ɪ̀. When used as AMs they agree in number with the preceding head noun.

56   íd   tìr–àr
      person.SG SOW-AN.SG
      "farmer"

57   ból–ɪ̀   kàŋŋ–àr–ɪ̀
      dog-PL hunter-AN-PL
      "hunting dogs"

58   ín–í   ʃɛk–àr–ɪ̀[47]
      person-PL carve-AN-PL
      "carpenters"

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46 Noun plus noun constructions are frequently used in kinship terms. This is also attested in Ismail's paper in this volume.
47 "Carpenter" may also be expressed by ɛ̀d–àr / ɛ̀d–àr–ɪ̀.

Interestingly, by means of a tonal alternation on the last syllable it is possible for agent nouns to attribute an intensified or habitual quality ("very good," "quarrelsome") to their referent.

íd	tìr–âr	59
person.SG	SOW-AN.SG.INTENS	209

"very good farmer"

ból–ì	kàŋŋàr–î̂	60
dog-PL	hunter-AN-PL.INTENS	

"very good hunting dogs"

ín–í	ìtìg–àr–î̂	61
person-PL	quarrel-AN-PL.INTENS	

"quarrelsome people"

8. Conclusions

In our paper we have been concerned with AMs, i.e. attributive modifiers of nouns. Such AMs render adjectival meanings and are therefore often indiscriminatively referred to as "adjectives." In Taglennaa, however, AMs do not form a uniform word class. Rather they comprise six distinct word classes ("parts of speech").
1. a very small and closed class of five "true" adjectives,
2. a class of noun-like adjectives which is open for borrowings,
3. relative clauses based on quality verbs,
4. participles,
5. nouns denoting age and gender, and
6. agent nouns.
Although AMs may be assigned to six word classes and differ in respect to their morphological structure, they share the following syntactic, morphosyntactic, and semantic features: they follow the head noun, they agree in number with the head noun, and they render more or less timestable semantic properties to the referent of a noun phrase.

As for their morphological features, true adjectives all end in –ɛ, their singular and plural forms being distinguished solely by tonal contrast or additionally by the alternation of the root vowel. By contrast, noun-like adjectives take number suffixes which are similar to those of nouns, as they occur in basically two patterns, plural marking (the singular being unmarked) or a replacive pattern in which both the singular and the plural are marked. The number marking suffixes on noun-like adjectives are often the same as those on nouns. However, there are some exceptions: First, the singular/

plural pair of suffixes, –i / –e is exclusively attested on noun-like adjectives but not on nouns. Second, the plural suffix –il is employed on AMs unmarked in their singular forms. On nouns, however, –il replaces various singular suffixes. Third, the singular or singulative suffix –tʊ occurs on nouns only but never on noun-like adjectives. These findings confirm Dixon stating that the distinction of adjectives and nouns (or adjectives and verbs) may be very subtle.[48]

Some AMs have morphological traits clearly indicating the membership in a specific word class. Thus, AMs marked by –r represent relative clauses based on quality verbs. AMs marked by –àdʊ̀ (SG) and –ànɪ̀ (PL) are participles. AMs marked by a low tone pattern and the suffix –àr represent agent nouns.

As for their syntactic characteristics, nouns denoting age and gender as well as agent nouns may function both as AMs and as heads of noun phrases. Thus these items are characterized by their membership in two word classes. The question whether true adjectives, noun-like adjectives, relative clauses, and participles can be employed as head nouns, too, has not been explored in our paper.

There tends to be a correlation between the prototypical meaning of a specific word class, as Wierzbicka claims.[49] The Taglennaa data partly corroborate this claim: AMs conceived of as denoting transient states, for instance, physical qualities ("cold," "hard," "salty") are often encoded by quality verbs – except for the physical property "pointed" which is expressed by a true adjective rather than by a quality verb. AMs denoting single properties like "wide," "deep," and the color terms "red" and "green" are encoded as true adjectives. However, two other color terms, "white" and "black," do not appear in that group. Rather, their morphological composition suggests that they are part of the class of noun-like adjectives. This finding suggests that in Taglennaa the membership of an AM in a specific word class is not predictable.

The means to express the gradability of a property depends of the various classes of AMs. We have shown that degrees of properties encoded in "true" adjectives and noun-like adjectives can be expressed by i) phonological modification (e.g. lengthening of the root vowel or gemination of the syllable-final consonant), ii) morphological modification (e.g. reduplication of the AM), and iii) lexical modification (e.g. addition of an intensifier). As for AMs encoded by quality verbs, the expression of high or low degree is more limited involving either the reduplication of the AM or its lexical modification by an adverbial intensifier derived from an AM denoting dimension. Often these intensifiers are marked by –kɔ̀, e.g. high degree by ájjɛ́–

48 DIXON, "Adjective Classes in Typological Perspective," p. 1.
49 WIERZBICKA, "What's in a Noun?," p. 359.

n–kɔ̀, úggù–n–kɔ̀, and low degree by wàttà–kɔ̀. The same intensifiers are used on true adjectives and noun-like adjectives. They are, however, not employed on participles. Rather, properties expressed by participles are gradable by means of adverbial intensifiers ending in –ɔ̀n, such as bàllɔ̀n, dìbìllɔ̀n, and ŋɛ̀ccɔ̀n, which have aspectual connotations. The choice between these latter intensifiers appears to be determined by the semantics of the participle.

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While properties rendered by completely timestable notions such as gender are not gradable, AMs denoting age, i.e. a transient property may be rendered by adverbials associated with aspectual notions, such as ɛ́ltúrn "still," "not yet," or bàllɔ̀n "almost completely." Agent nouns, in turn, have a specific means for expressing a high degree of the property they attribute to the head noun: They use tonal modification.

In the introductory section we have pointed out that Taglennaa grammar is both head-marking and dependent-marking. According to Dixon,[50] head-marking languages and dependent-marking languages differ in respect to the characteristics with which their adjective classes are correlated. In head-marking languages the adjective class tends to be grammatically very similar to verbs, in dependent-marking languages the adjective class tends to be grammatically very similar to nouns. Since Taglennaa is both head-marking and dependent-marking, we encounter both groups, AMs that are grammatically similar to verbs, as attested by the group of quality verbs, and AMs that are similar to nouns, as attested by agent nouns and nouns expressing gender and age. If we consider verbs and nouns as representing two word classes with opposite semantic and grammatical values, the other AM classes, i.e. participles, true adjectives, and noun-like adjectives, due to their more-or-less verb-like or noun-like features, may be conceived of as representing intermediate values between verbs and nouns.

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50 DIXON, *The Rise and Fall of Languages,* p. 125.

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Kadaru-Kurtala Phonemes

Thomas Kuku Alaki and Russell Norton

Introduction

The purpose of this phoneme statement is to support the development of an alphabet and alphabet booklet with Kadaru speakers from Kurtala. According to *Ethnologue,*[1] Kadaru [kdu] is one of seven languages that can be distinguished within the Hill Nubian family, and it is spoken on hills east of Dilling by the following six clans, each with their own dialect:

▸ Dabatna or Kaaral
▸ Kafir or Ka'e
▸ Kurtala or Ngokra
▸ Kadaru or Kodur
▸ Kuldaji or Kendal
▸ Kururu or Tagle

The name in Arabic for the area where this language is spoken is *Jibāl Al-Sitta* "Mountains of the Six" but speakers prefer indigenous names, even though these vary according to their clan. "Kadaru" is a name of one of the clans but is also in use for the whole area and language of all six clans. The speakers consulted in this paper are from the Kurtala clan. In their view, the term "Kurtala" can refer to the whole area and language of the six clans, just as the term "Kadaru" can. They also affirm that the six clans speak related dialects and can understand each other.

The phonology of another clan dialect, Tagle, is described by Ibrahim & Huttenga[2] and on inspection we find that the Tagle data in that paper are very close to the Kurtala data in this paper, so we affirm that they can be considered dialects of the same language. Another Kadaru word list is recorded by Thelwall.[3] Kurtala dialect speakers consulted for the data in this paper were Juma Kodi Brema, Abdu, and Ziber who live in Khartoum. A word list was transcribed

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1   Lewis, Simons & Fennig, *Ethnologue.*
2   Ibrahim & Huttenga, "The Phoneme System of Tagle."
3   Thelwall, *Lexicostatistical Relations between Nubian, Daju and Dinka.*

in the International Phonetic Alphabet and in a trial alphabet in the Roman script in consultation with the speakers. The transcriptions of Kadaru words were then refined by contrastive analysis, with the speakers giving their emic judgements on whether similar phones count as same or different according to the participatory research method of Kutsch-Lojenga.[4] This work was conducted initially during December 2011 in Khartoum, and then refined during the preparation of this paper.

A. Consonants

1. Consonant chart

Tentative consonant phonemes are shown in table 1. Consonants with limited distribution are in parentheses.

Table 1. Consonant phonemes

	labial	dental	alveolar	palatal	velar
vl plosives	(p)	t̪	t (tʷ)	(c)	k (kʷ)
vd plosives	b	(d̪)	d	ɟ	(g)
fricatives				ʃ	
nasals	m		n	ɲ	ŋ
lateral			(l)		
trill			(r)		
flap			(ɾ)		
approximants	(w)			(j)	

There are voiced and voiceless plosives in five places of articulation and nasals in four of these. There is only one fricative /ʃ/ which we assign to the palatal column. There are three alveolar liquids – a lateral, a trill, and a flap – and there are two central approximants.

2. Consonant distribution

Table 2 shows the distribution of consonants word-initially, intervocalically, and word-finally:

Table 2. Consonant distribution

phon.	initial		intervocalic		final	
(p)	—		—		kɔp	lion
b	búl	dog	àbúl	mouth	—	
t̪	t̪urín	locust	jat̪ʊ	goat	ít̪	person
(d̪)	—		bid̪id̪	bat	bid̪id̪	bat
t	tidəm	ostrich	titim	dove	ʃút	thread
d	doː	skin	dɛdʊ	cloud	ʃúd	sand
(tʷ)	tʷanʊ	bellies	—		—	
(c)	caŋ	python	—		—	

4 Kᴜᴛsᴄʜ-Lᴏᴊᴇɴɢᴀ, "Participatory Research in Linguistics."

phon.	initial		intervocalic		final	
ʃ	ʃíːl	king	èʃi	hand	kuʃ	bowl
ṯ	ṯadʊ	tongue	koṯən	reptile	íɣíṯ	liver[5]
k	kùḏú	mount	kákáː	stone	tɛɟɟʊk	thre
(kʷ)	kʷaʃa	bowl[6]	—		—	
(g)	—		bʊga	buffalo	—	
m	mὲɲ	back	kʊmʊ̀l	snake	taɽʊm	tortoise
n	nʊm	throne	anɪɲa	drum	ɛnɛn	mother
ɲ	ɲɪɲɪl	leftside	tʊːɲa	liver	ṯurɪɲ	locust
ŋ	ŋamɪjɛ	there	anɪɲa	drum	ṯoruŋ	chameleon
(l)	—		ʃalɛ	salt	kamúl	axe
(r)	—		kòru	shield	ɔ́r	tree
(ɽ)	—		taɽʊm	tortoise	—	
(w)	wərtíl	sheep	kúwa	kitchen	—	
(j)	jaṯʊ	goat	ɪja	neck	—	

Blank cells (—) show that no word was found with the consonant in that position. Only six obstruents /ṯ/, /t/, /d/, /ʃ/, /ɟ/, /k/ and the four nasals are confirmed in all three environments. The distributions of the other consonants are limited in a variety of ways:

word-initial only	word-initial & inter- vocalic only	intervocalic only	intervocalic & word- final only	word-final only
c	b	g	ḍ	p
kʷ	w	ɽ	l	
tʷ	j		r	

Table 3. Consonants with limited distribution

The plosives show a wide variety of distributional limitations in the data, but the three liquids /l/, /r/, /ɽ/ share the property of being absent word-initially and the two approximants /w/, /j/ share the property of being absent word-finally.

Of the consonants with restricted distributions, the labial plosives [b] and [p] in particular are phonetically similar sounds occurring in complementary distribution. However, this complementary distribution is not repeated for voiced and voiceless obstruents at other places of articulation. Rather, the specification of voicing is subject to different redundancies for labial, dental, and velar obstruents, as given in table 4. Blank cells indicate that both voiced and voiceless obstruents have been recorded in that environment, so voicing is not specified either as voiced or as voiceless in that en-

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5 The word [tʊːɲa] "liver" is considered to be native to Kurtala, but [íɣíṯ] is another word meaning "liver" in circulation.
6 [kʷaʃa], [kʷɔ́ʃa], [kuʃ] "bowl" are variant forms with the same meaning.

vironment for that place of articulation. For example, there are no voicing restrictions on alveolars or palatals.

Table 4. Redun-dancies in the voicing feature

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	initial	intervocalic	final
labial	voiced only	voiced only	voiceless only
dental	voiceless only		
alveolar			
palatal			
velar	voiceless only		voiceless only

Whether labials are voiced or voiceless is specified redundantly in all three environments. This is also the case in the dominant language Sudanese Arabic [apd],[7] where labial plosives are always voiced. However, Kadaru-Kurtala is distinguished from Sudanese Arabic in word-final position. In Sudanese Arabic, labial plosives are voiced word-finally, e.g. [baːb] "door," but in Kadaru-Kurtala, labial plosives are voiceless word-finally, e.g.:

íp   "tail"
ʃap   "giraffe"
kɔ́p   "lion"
nɔ́p   "gold"
tɔ́p   "earth"

The phonetics of voiceless word-final plosives in Kadaru-Kurtala is described further below under "Free Variants."

2.1 Free variants
A voiced palatal plosive may become a postalveolar fricative word-initially.

c ~ ʃ / #_   e.g. caŋ, ʃaŋ "python"

A voiced velar plosive may become a fricative intervocalically.

g ~ ɣ / V_V   e.g. èɣíl "today"   úgú "blood"
                    èɣí "goats"   bʊga "buffalo"

An alveolar trill may become a single tap intervocalically.

r ~ ɾ / V_V   e.g. aɾa "rain"   kòru "shield"
                    èɾí "rope"   uri "black"

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7   Lewis, Simons & Fennig, *Ethnologue*.

A voiceless plosive may be unreleased or with nasal release word-finally.

P˺ ~ Pᴹ̥ / _#   e.g. íp˺, ípm̥ "tail"
(P = voiceless plosive, M = homorganic nasal)

In a word-final voiceless plosive, the closure is made with an observable degree of muscular tension and crucially this closure is maintained for longer than the air pressure behind the closure in the oral cavity, so that there is no oral release of the voiceless plosive. This produces an unreleased plosive e.g. [p˺], unless the air pressure behind the oral closure is released through the velic passage instead by opening the velum, producing a plosive with nasal release e.g. [pm̥]. The nasal release is clearly voiceless, confirming that the word-final plosive is voiceless rather than voiced. Compare also the plural form "tails" where voicelessness is reconfirmed:

íp˺, ípm̥ "tail"   íppanʊ "tails"

3. Consonant contrasts

Contrastive word pairs are shown for phonetically similar consonants in table 5. Since minimal pairs are lacking, word pairs are given in which the two consonants are in minimal contrast in the syllable in which they occur. Weaker contrastive word pairs are shown in parentheses.

p–b	—		—		Table 5. Contrastive word pairs
b–m	abʊl	mouth	ɔmʊl	elephant	
b–w	bara	yellow	wata	ash	
m–w	mɛɲ	back	wɛŋga	that	
t̪–d̪	(ít̪	person	bid̪id̪	bat)	
t̪–t	(t̪urín	locust	titim	dove)	
d̪–d	ʊd̪ʊ	breast	dɛdʊ	cloud	
t–tʷ	taɾʊm	tortoise	tʷanʊ	bellies	
t–d	tɛɲʊ	thigh	dɛdʊ	cloud	
	katʊ	field	dɛdʊ	cloud	
	ʃʊ́t	thread	ʃúd	sand	
d–n	dʊl	larynx	nʊm	throne	
d–l	(dɛdʊ	cloud	bɛlɛ	sesame)	
n–l	(ɛnɛn	mother	bɛlɛ	sesame)	
l–r	kɛlɪ	food	ɛrɪ	rope	
l–ɾ	ʃalɛ	salt	taɾɛ	plate	
r–ɾ	(ɪrɪŋ	nose	kìɾáŋ	drum)	
c–ɟ	(caŋ	python	ɟadʊ	tongue)	

ʃ–ɟ	(ʃaŋ	python	ɟadʊ	tongue)
	ʃuʃəŋ	to go	koɟəŋ	reptile
ɟ–ɲ	ɟadʊ	tongue	ɲama	dough
ɲ–j	ɲama	dough	jaḍʊ	sugarcane
ɟ–j	ɟadʊ	tongue	jaḍʊ	sugarcane
k–kʷ	káká:	stone	kʷaʃa	bowl
k–g	káká:	stone	bʊga	buffalo
ŋ–w	ŋamɪjɛ	there	wata	ash
kʷ–w	kʷaʃa	bowl	wata	ash
m–n	(mɛɲ	back	nʊm	throne)
n–ɲ	ɛnɛn	mother	kɛɲɛltʊ	egg
ɲ–ŋ	ɲama	dough	ŋamɪjɛ	there

Word pairs for voiced-voiceless contrast vary considerably in quality for different places of articulation: the alveolar contrast /t–d/ is well supported by word pairs in multiple environments, with intermediate degrees of evidence of contrast at other places of articulation, down to the labials /p/ and /b/ which appear in complementary distribution giving no contrastive word pairs at all. Nevertheless, at the stage of forming a trial alphabet, the speakers who were consulted perceive an emic distinction between /p/ and /b/, including the perception that Kadaru word-final [p] is different from Sudanese Arabic word-final [b]. It remains to be seen whether this perception of the distinction between /p/ and /b/ is shared by a larger number of Kadaru speakers, and this is being tested by the distribution of an alphabet booklet based on the distinctions presented in this paper.

The palatal plosive /c/ and fricative /ʃ/ also do not have contrastive word pairs, and there is evidence of free variation between them in section 2.1 above. But again, consulted speakers seem to perceive an emic distinction between /c/ and /ʃ/. As this is the only fricative phoneme in the language in table 1, we conclude that it is the result of a shift *c > ʃ which is incomplete in word-initial position where the cases of [c] are found, and also incomplete for double consonants (see section 4 below). The speakers are aware of this recent sound shift in their language, and hence aware of the distinction itself between /c/ and /ʃ/, perhaps aided by the acoustic difference between [c] and [ʃ].

4. Consonant sequences

Table 6 shows that Kadaru-Kurtala has consonant sequences word-medially. The range of attested consonant sequences is relatively free, including examples of non-homorganic nasal and plosive apparently conditioned by the preceding vowel, [mt] after a rounded vowel and [ɲd] after a front vowel. It also includes at least one se-

quence of two plosives. This exceeds the range of consonant se-
quences found in the related Hill Nubian language Uncu (also iden-
tified as Ghulfan [ghl][8]) in data we elicited in 2007, shown on the
right-hand side of the table for comparison.

Kadaru-Kurtala			Uncu			
nt̪	nɔnt̪ʊ	moon	nt̪	t̪ɛ̀nt̪ú	intestines
nd̪	ɟúnd̪ʊ	small	nd̪	kánd̪ɛ̀t̪ú	bird
nt	kúntú	knee	nt	ɔ̀ntú	arm
nd	kʊnda	smoke	nd	arɛndúwa	sky
ɲɟ	kʊɲɟaŋ	lyre	ɲɟ	tɔɲɟɔ	thigh
ŋg	ɔŋgɔl	road			
mt	kʊmtɛ	(woman's name)			
ɲd	akiɲdʊ	adze			
ld̪	eld̪o	heart	ld̪	ábʊld̪ɛ	adze
lt	káltú	eye	lt	káltʊ̀	eye
ld	kʊldaɟɪ	(clan name)			
lɕ	ʊlɕa	ear	lɕ	ʊlca	ear
lm	ʃalmɛ	chin			
rb	t̪arbʊ	twenty	rb	t̪àrbɔ	twenty
rt̪	kɔrt̪ʊ	shoe	rt̪	ɔrt̪ɪ	sheep
rt	wərtíl	sheep	rt	àmʊrtɛ̂	palm
rd̪	kɔrd̪ʊ	forest	rd̪	ʃɛ̀rd̪ʊː	short
			rd	kʷardɪlɛ	cock
rʃ	kɔrʃʊ	six	rʃ	írʃʊ	wind
rk	bɛrkʊ	(placename)			
			rŋ	ɔrŋaɽʊ	leaf
kl	taklɛ	(clan name)			
			kr	kákrí	stones
kr̪	ŋɔkɽal	(clan name)			
dk	kudkire	dust			

Here, we find a dissimilation process affecting the fricative:

> The postalveolar fricative /ʃ/ becomes alveolopalatal following an
> alveolar lateral.
> /ʃ/ → [ɕ] / l_ e.g. ʊlɕa "ear"

Table 7 shows that Kadaru-Kurtala also has long consonants word-
medially. Since the language has consonant sequences word-medi-
ally as in table 6, the long consonants in table 7 are interpreted as
double consonants.

8   Lewis, Simons & Fennig, *Ethnologue*.

Table 7. Double consonants

	single		double	
pp	íp	tail	íppanʊ	tails
tt	katʊ	field	attʊ	wing
dd	dɛdʊ	cloud	kʊddʊ	leg
cc	caŋ	snake	tɪccɔ	five
ɟɟ	tɛɟɛ	green	tɛɟɟʊk	three
kk	kúkú	chicken	wɔ̀kkú	chest
gg	úgú	blood	ɪggá	ire
mm	ɔ̀múl	elephant	ʊmma	many
nn	aniŋa	drum	tɪnna	wife
ll	ʃalɛ	salt	kɛllɛ	red
rr	kɛ́rɛ	porridge	tɛrrɛ	bull

The plosives /p/, /c/, /g/ all have very restricted distributions as single consonants, but they also occur as double consonants providing a little more support for them, although we have not found contrasting examples of /pp/ with /bb/ or /cc/ with /ʃʃ/. However, voiced and voiceless double plosives both occur at alveolar, palatal, and velar places of articulation, providing some more support for the voicing contrasts /t–d/, /c–ɟ/, and /k–g/.

B. Vowels

1. Vowel phonemes
Vowel phonemes are given in table 8. Two less well-established phonemes are given in parentheses.

Table 8. Vowel phonemes

	[−ATR]		[+ATR]	
close	ɪ	ʊ	i	u
mid	ɛ	ɔ	(e)	o
open	a		(ə)	

2. Vowel contrasts
Table 9 shows that all ten vowels occur in words with two identical vowels or words with one vowel. These words contain only one vowel quality and therefore demonstrate that the vowel qualities are not derived by harmony with another vowel, but are substantiated by separate word sets verified by speakers.

Table 9. Word sets for vowel phonemes

	two identical vowels		single vowel	
i	irid̠	canoe	it̠	person
	írín	scorpion	ʃin	termite house
	titim	dove	ʃíːl	king
	bid̠id̠	bat	t̠i	cow

	two identical vowels		single vowel	
ɪ	kíní	doors	íp	tail
	írɪŋ	nose	t̪ɪ̀l	hair
	ɲɪŋɪl	left side	ɪː	sun
e	nenɟê	what is it?	kel	stick
ɛ	bɛlɛ	sesame	kɛ́l	boundary
	ɛnɛn	mother	mɛ̀ɲ	back
	t̪ɛrrɛ	bull	bɛ̀ː	one
	bɛɟɛ	green		
ə	kəɾəl	(placename)		
	ʃəʃə	k.o. tree		
a	kàkà	crow	kal	porridge
	kákáː	stone		
	áɾa	rain		
	tataŋ	all		
ɔ	ɔ́kɔ̀	chest	tɔ́ː	belly
	ɔŋgɔl	road	kɔp	lion
	ɔrrɔ	two	ɔɲ	year
o	óndo	donkey	kòl	house
			doː	skin
			oː	hillside spring
ʊ	kʊddʊ	leg	búl	dog
	ʊ́gʊ́	blood	nʊm	throne
	ʊ́d̪ʊ́	breast	dúl	larynx
	kʊmʊ̀l	snake	ʃʊ́t	thread
u	unu	flies	ʃúd	sand
	kúntú	knee	kuː	chicken stomach
	kúndu	smoke		
	kùd̪ú	mount		

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Table 10 shows contrastive word pairs for phonetically similar vowels. Wherever possible the word pairs show the two vowels in minimal contrast in the syllables in which they occur.

i–ɪ	ít̪	person	íp	tail
	íríɲ	scorpion	íɟíɲ	nose
e–ɛ	kel	stick	kɛ́l	boundary
ə–a	əɲu	fat	aɲu	alive
o–ɔ	ondo	donkey	nɔɲt̪u	moon
			ɔɲ	year
u–ʊ	uri	black	ʊnɪ	grass
ɪ–ɛ	t̪ɪ̀l	hair	kɛ́l	boundary
ɛ–a	kɛ́l	boundary	kál	porridge
a–ɔ	àbúl	mouth	ɔ́mʊl	elephant

Table 10. Contrastive word pairs

ɔ–ʊ	ɔkɔ	chest	úgʊ́	blood
o–ʊ	kòl	house	búl	dog
i–e	ʃíːl	king	kel	stick
u–o	uri	black	ori	rope
e–ə	egil	today	əboki	(place name)

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3. Vowel Distribution

All ten vowels have unrestricted distribution with respect to word boundaries as shown in table 11.

Table 11. Vowel distribution in the word

phon.	initial		medial		final	
i	ɪrṭiḓa	root	kedil	bone	èʃí	hand
ɪ	íɟɪŋ	nose	ṭíl	hair	kíní	doors
e	èʃí	hand	bèrí	yellow	biɟe	beer
ɛ	ɛnɛn	mother	ṭɛrrɛ	bull	bɛlɛ	sesame
u	unuṭ	fly	ʃúṭí	fish spear	úgú	big
ʊ	únɪ	relative	búl	dog	ìḓʊ	woman
o	óndo	donkey	kól	house	doː	skin
ɔ	ɔ́mʊl	elephant	bɔ́lṭʊ		ɔrrɔ	two
ə	əboki	(place name)	koɟən	alligator	ʃekkə	(pers. name)
a	àttú	wing	kal	porridge	dɔta	tool

The distribution of vowels is restricted by the generalisation that vowels of different [ATR] sets are not mixed in the same word. Table 12a gives words with [–ATR] vowels, and table 12b words with [+ATR] vowels.

Table 12a. Vowel harmony [–ATR]

	ɪ	ɛ	a	ɔ	ʊ
ɪ	tɪtɪm	bɪkɛ̀	ɪgga	ídɔ	ɪːtʊ
	dove	worms	fire	eight	louse
ɛ		bɛlɛ	èdaŋ		dɛ̀dú
		sesame	leaf		cloud
a	ɔrṭɪ	taɽɛ	ara	karɔl	áttú
	sheep	plate	rain	fish	wing
ɔ	ʊnɪ	kɔ̀rɛ́	dɔta	ŋgɔtɔ	kɔrṭʊ
	grass	leprosy	tool	near	shoe
ʊ		úrɛ̀	kʊnda		kútú
		black	smoke		stone

Table 12b. Vowel harmony [+ATR]

	i	e	ə	o	u
i	iriḓ	biɟe	tidəm		iruː
	canoe	beer	ostrich		sea

	i	e	ə	o	u
e	bèrí	nenɟê	kendəl	elḍo	bènu
	yellows	what is it?	(clan name)	heart	thigh
ə	wərtíl		ʃəʃə	əboki	ənu
	sheep		kind of tree	(place name)	fat
o	ori	ṭorʃen	koɟəŋ	ondo	kòru
	rope	(man's name)	reptile	donkey	shield
u	uri	kúmè		durko	kúndu
	black	kind of rat		(man's name)	smoke

C. Syllables and prosody

1. Syllable structure

Kadaru-Kurtala has words with all four basic syllable types, in table 13.

CV	ṭí	cow
V	ɛ̀ː	we
VC	ɔŋ	year
CVC	kòl	house

Table 13. Syllable types

The four syllable types combine in longer words in table 14.

CV.CV	bɛ.lɛ	sesame
CV.CVC	ka.ɽɔl	fish
CVC.CV	kɔr.ṭʊ	shoe
CVC.CVC	wər.til	sheep
VC.CV	on.do	donkey
VC.CVC	ɔŋ.gɔl	road
V.CV	ʊ.nɪ	grass
V.CVC	i.riḍ	canoe
V.V		

Table 14. Syllable types combined

The combination V.V is lacking. In [ɪja] "neck" and [kʊwa] "kitchen," the intervocalic approximant is arguably inserted as a transitional sound following /ɪ/ and /ʊ/, since /j/ and /w/ have not been found between two non-high vowels, which would give these words a /VV/ sequence underlyingly. Since there is no wider support for V.V sequences from words containing other sequences such as [ɛɔ], [ɔɪ], etc. the approximants /j/ and /w/ ensure that [ɪ.ja] "neck" and [kʊ.wa] "kitchen" fit into the CV.CV and V.CV structures that are attested in other words.

2. Vowel length and tone

We offer only tentative initial evidence regarding the role of prosodic features of vowel length and tone. In tables 15a and 15b, examples of long vowels are shown in words of one open syllable and in longer words, respectively. We have very few examples of contrasting short vowels in the same environment; nearly all of them are for high front vowels.

Table 15a. Vowel length in words of one open syllable (V of CV)

	long		short	
i	biː	other	tí̠	cow
ɪ	ɪː	sun	bɪ	some
(e)				
ɛ	ɛ̀ː	we		
	tɛ́ː	grinding		
	bɛː	one		
(ə)				
a				
ɔ	tɔ́ː	belly		
o	oː	hillside spring		
	dòː	skin		
ʊ	ʊ̀ː	head		
	kʊː	nipple		
u	kuː	chicken stomach		

Table 15b. Vowel length in longer words

long		short	
ʃíːl	king	tí̠l	hair
ɪːtʊ	louse	iruː	sea
kákáː	stone	kàkà	crow
tʊːɲa	liver		

Since there is a strong tendency in the data for long vowels to occur in words of one open syllable, more data is needed to establish a reliable vowel length contrast as opposed to predictable lengthening.

In table 16 we also note some tentative evidence that tone contrast exists in the language.

Table 16. Possible tone contrasts

high		low	
tɛ́ː	grinding	tɛ̀ː	lake
kál	after me	kàl	porridge
kákáː	stone	kàkà	crow
únì	relative	ùnì	grass

More investigation is needed to be able to analyse tone in the language.

D. Orthography

In consultation with Kadaru-Kurtala speakers, the letters in table 17 were suggested for writing the language.

phoneme	letter	example	gloss
a	a	aninga	drum
b	b	bul	dog
c	c	ticcu	five
d	d	dotu	horn
ḍ	dh	bïdhïdh	bat
ɛ	e	edang	leaf
e	ë	ësï	hand
g	g	egi	goats
ɪ	i	igga	fire
i	ï	tï	cow
ɟ	j	jadhu	tongue
k	k	küdhü	mountain
kʷ	kw	kwosa	stone dish
l	l	köl	house
m	m	omul	elephant
n	n	nonthu	moon
ŋ	ng	kirang	drum
ɲ	ny	ïrïny	scorpion
ɔ	o	or	tree
o	ö	köl	house
p	p	ip	tail
r	r	ara	rain
ɽ	rh	tarhum	tortoise
ʃ	s	usi	hand
t	t	turundu	chameleon
ṭ	th	thürï	pot
ʊ	u	ulca	ear
u	ü	ünütü	star
w	w	wartil	sheep
j	y	yadu	sugarcane

Table 17. Proposed letters

Jabr El Dar has proposed an inventory of letters for all the communities of the Ajang or Hill Nubian language family to write their languages,[9] based on the phonologies of Deleny or Dilling [dil], Kar-

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9   Jabr El Dar, "Towards a General Orthography of Ajang Languages."

ko [kko], and the Tagle dialect of Kadaru [kdu] as analysed by Ibrahim and Huttenga.[10] Our suggested Kadaru-Kurtala alphabet uses the consonant symbols and digraphs proposed by Jabr El Dar, but we add *s* for the palatal fricative to distinguish it from *c* for the palatal plosive. Abdelbagi Ali Daida of the Uncu Documentation Project at the American University in Cairo writes the Uncu or Ghulfan [ghl] language using a digraph *sh* for the palatal fricative, but this digraph is not employed in contrast with the simple graph *s* which is not used in his orthography, but Kadaru-Kurtala writers favour the single graph.

For vowels, Jabr El Dar proposes adding extra vowel symbols to the five vowel letters {*aeiou*} of the Roman script in order to write all ten vowels. He mentions that other languages of Sudan use the umlaut for [+ATR] vowels, but raises the problem that it is not easy to read a vowel with a tone diacritic on top of an umlaut diacritic. However, Uncu is written using umlauts for [+ATR] vowels, and in alphabet booklets that we have facilitated for many other languages of the Nuba Mountains and Blue Nile, umlauts are widely and successfully used to mark [+ATR] vowels, known to members of the communities as "heavy" vowels. Futhermore, writers from some of these communities, in particular Katcha, Lima, and Julud, had earlier tried vowel digraphs {*ax,ex,ix,ox,ux*} for [+ATR] vowels and have since decided to switch to using umlauts instead. Therefore, we propose umlauts for [+ATR] vowels in Kadaru. The exception to this is that the letter {a} without umlaut is currently in use for writing Kadaru for both [–ATR] and [+ATR] central vowels, which may be feasible because of the relative rarity of the [+ATR] central vowel /ə/ occurring as the only vowel in a word.

We are recommending an orthography without tone marks. Bird has shown that including tone marking in a writing system can slow down reading and writing,[11] and therefore we consider that not every tonal language needs to write tone. If need be, there are ways of writing tone other than stacking further diacritics on top of the umlaut. In Laru [lro], for example, a Heiban language in the Nuba Mountains where [+ATR] vowels are written with umlauts, contrastive high tone is marked by writing a double vowel, as documented by Abdalla.[12] So if tone contrasts are found to be widespread in Kadaru to distinguish words and grammatical differences, and if they are clearly perceived by Kadaru speakers, then there could be consultations on writing tone.

10 Ibrahim & Huttenga, "The Phoneme System of Tagle."
11 Bird, "When Marking Tone Reduces Fluency."
12 Abdalla, "Statement about the Tone Feature in Laru."

E. Conclusion

Kadaru-Kurtala has a consonant inventory spread over five places of articulation, but many of the consonants show limited distributions. As a result, the distributional evidence does not always match the emic perceptions of contrast by the speakers consulted, in particular for the plosives /p/ and /c/ which are not well-supported by distributional evidence. Kadaru-Kurtala also has a system of ten vowels with [±ATR] contrast for each of the five vowel qualities, and ATR harmony in words with two or more vowels. Contrastive evidence for two of the [+ATR] vowels /e/ and /ə/ is less frequent in our data, and so far it seems possible for writers to under-differentiate the /ə–a/ contrast by representing both phonemes by one letter in their alphabet, as they have chosen to do. The proposed phonemes and the letters that represent them may now be tested with more members of the language community.

   Some initial evidence on possible vowel length and tone contrasts in the language was presented, but an analysis of prosodic contrasts is left for others to research, noting the existing analysis by Ibrahim & Huttenga of prosodic contrasts in the Tagle dialect.[13]

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13   Ibrahim & Huttenga, "The Phoneme System of Tagle."

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Tabaq Kinship Terms

Khaleel Ismail

1. Introduction

The Tabaq people who call themselves ṭààní live in the western fringe of the Nuba Mountains, neighboring the linguistically un-related Tima (north), Tulishi (south east), and related Abu Jinuk (north west). Compared to other related language groups in the Nuba Mountains, the conquest by the Tabaq people of their present area is recent and still kept in memory. As their area was occupied by the Turuj people, the Tabaq drove them out before settling there. This event is put at ca. 1755–6.[1] The Tabaq people are considered the smallest group in the area. The exact number of its native speakers is unknown due to migration and displacement because of the ongoing war, started in the Nuba Mountains in 1989 between the SPLM/A[2] and the government forces, that caused many people to leave their villages and go to cities and big towns for security and better services.

Moreover, the Nuba Mountains are an area where diverse languages are spoken, with the Arabic language serving as a lingua franca among different ethnic groups, including Tabaq. However, nowadays Arabic is widely spreading and becoming a mother tongue for many people of the young generation, especially those who are growing up in the cities. Nuba people in general have started to abandon their own native languages in favor of Arabic for a number of reasons: they have left their homelands for cities where Arabic is the only medium of communication, and their sociocultural

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1 STEVENSON, *The Nuba People of Kordofan Province,* p. 38.

2 Abbreviations: B – brother; BC – brother's child; BD – brother's daughter; C – child; D – daughter; DIM – diminutive; F – father; FB – father's brother; FBC – father's brother's child; FBD – father's brother's daughter; FC – father's child; FM – father's mother; FW – father's wife; FSL – father's sibling; FZ – father's sister; FZC – father's sister's child; FZD – father's sister's daughter; G – Grandchild; GD – granddaughter; M – mother; MB – mother's brother; MBD – mother's brother's daughter; MBS – mother's brother's son; MM – mother's mother; MZ – mother's sister; MSL – mother's sibling; MZD – mother's sister's daughter; MZS – mother's sister's son; PL – plural; SL – sibling; SLC – sibling's child; SG – singular; SPLM/A – Sudan People's Liberation Movement/Army; Z – sister; ZC – sister's child; ZD – sister's daughter.

and religious orientation and the attitude towards their own native languages has witnessed a great change over the last three decades. As a result many languages are at the fringe of endangerment. So, looking at the small number of the speakers, because of the above mentioned factors and the fact that Tabaq people in general are few in number, Tabaq is considered to be an endangered Kordofan Nubian language.

This paper aims at investigating the Tabaq kinship system from an ethnolinguistic view point. It probes the nature of kinship terms and what are the possible morphological processes associated with them.

Lavenda and Schultz have defined kinship systems as, "[t]he various systems of social organization that societies have constructed on principles derived from the universal human experiences of mating, birth, and nurturance."[3] According to Franchetto,

> kinship terminology is the key area of ethnographic enquiry. These terms denote positions in a genealogical structure, associated with multiple denotata. The determination of kin relationships is influenced by many variables, such as genealogical distance and proximity [...]. A systemic analysis of kinship terminology must include a precise indication of the position covered by each term in a genealogical structure, using vocabulary or abbreviations currently used in anthropology.[4]

Thus, kinship terms usually play a great role in studying the culture and the ethnolinguistic factors that form the social hierarchy of a specific community. That is, by studying kinship terms in Tabaq, it is hoped to draw conclusions about the proper positioning of social relations and genealogical structure in terms of distance and proximity as indicated by Franchetto in the above quotation.

As stated by Ayling in his study on the importance of kinship in the development of anthropological theory, "[k]inship can be thought of as consisting of a) the vertical relationships between generations – descent; b) the links between brothers and sisters – siblingship; and c) links by and through marriage – affinity."[5] All three points will be addressed in this paper on Tabaq.

In Tabaq, the idea of a ʃáàlí "family," i.e. people living in one compound, includes descent, íʈà "siblingship," i.e. brothers and sisters, and the kɛ́ɛ́r "affinity" or "marriage relation." This is simply because the Tabaq community is a very welcoming society, and whoever lives

3   LAVENDA & SCHULTZ, *Core Concepts in Cultural Anthropology,* p. 138.
4   FRANCHETTO, "Ethnography in Language Documentation," p. 187.
5   AYLING, "Why Has Kinship Been So Important in the Development of Anthropological Theory?," pp. 1–2.

in a house or a compound with a family is considered a ʃáàlnìdʊ̀, i.e. a member of that family.

Moreover, as Bonvillain writes, "speakers can signal social meanings of intimacy, solidarity, or deference towards co-participants by extending kinship terms as address forms of nonkin."[6] Thus, as we will see in the Tabaq case, whatever the terms chosen, it is mandatory for the junior relative to address his or her senior by a kin term both reflecting respect and social hierarchy. This implied respect of the social hierarchy is exemplified in linguistic practices of the addresser, which, according to Blum, is "consistent with cultural models or prototypes of the valued relationship between benevolent older kin who take care of the younger ones, who reciprocate with affection [and] later in life with care."[7]

2. Tabaq kinship terminology

From a lexical point of view, in Tabaq, kinship terms are divided mainly into two groups: kinship terms in which a single word is used to refer to a kin relation, and compound descriptive kinship terms where two or more kinship terms are combined together in order to refer to a kin relation. These kinship terms are of three semantic types: terms referring to blood relations, terms referring to affinal relation (marriage relations), and terms referring to other social relations and stages of life. These three types are discussed in the next sections.

Thus, kinship relations are usually marked by kinship terms. In Tabaq, áfá "father," t̪ɔ̀ɔ̀d̪ʊ̀ "child," áɲá "father's sister," etc., all constitute different kinship terms. Depending on the specific case, a kin term may cover more than one kinship relation, as with the term màà which refers to both the biological mother and the maternal aunt.

2.1 Terms referring to blood relations
The Tabaq people classify all the blood relations into two main groups: íkʊ́ní, relations of the paternal side and kʊ́rí, relations of the maternal side, with the áfá "father" being the base of reference on the paternal side and the màà "mother" being the base of reference on the maternal side. In the Tabaq language, as in other related Nubian languages, there is a set of terms which are used to refer to or address kin relations.

Tabaq's conversion to Islam over the last century has been a great influence in their culture and social milieu. As a result, almost all

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6   Bᴏɴᴠɪʟʟᴀɪɴ, *Language, Culture, and Communication*, p. 86.
7   Bʟᴜᴍ, "Naming Practices and the Power of Words in China," p. 372.

Tabaq names have been replaced by Arabic Islamic names, and the Arabic naming system is now fully adopted by Tabaq people. Consequently, children in general (irrespective of the gender) are named with reference to their father's side, i.e., the second name is the biological father's name. One may add as many forefathers' names as can be remembered, as in the Arabic naming system. Usually people can recite four to five names. In her study on the neighboring unrelated Tima language, Schneider-Blum mentions that "[b]lood relationship in this ethnic group is highly valued. When, e.g., seeing a hitherto unknown child for the first time, the question after the name is inevitably followed by the question after the parents, to be able to place the child correctly into the context of the whole kinship system of the Tima."[8] The same applies to Tabaq. The following table presents the basic blood relationship terms.

Table 1. Terms referring to blood relations

Tabaq	abbrev.	gloss
áfá	F	father
màà	M, FW, MZ	mother, father's wife, maternal aunt
íṭὲ	SL, B, Z	sibling, brother, sister
ṭɔ̀ɔ̀ḍù	C	child
úṭέ	G	grandchild
ṭîì	MB	maternal uncle
fáàfá	FB	paternal uncle
áɲá	FZ	paternal aunt
wɔ́ɔ́	MM, FM, MF, FF	maternal grandmother, paternal grandmother, maternal grandfather, paternal grandfather

In Tabaq, people use kinship terms when addressing people senior to themselves, either within their own generation or in ascending generations, even when they are not related by blood. In general, it is disrespectful to address individuals belonging to the older generation by their names. For instance, any old man who is from one's paternal clan who is in the same age as one's father is addressed by the term fáàfá. The term ṭîì is also used for any elderly man from the maternal clan who is roughly in the same age of the biological maternal uncle. The term wɔ́ɔ́ is used for addressing the maternal grandmother, paternal grandmother, and any old woman irrespective of the clan. Moreover, wɔ́ɔ́ is used to designate the grandfather but in this case the term kɔ̀ṭù, which means "man" and "male," is usually added if someone wants to be more specific about the gender. Also, áɲá "aunt" in Tabaq refers to a sister of one's father, the wife of one's paternal uncle, and a term of respect to any elderly

8 SCHNEIDER-BLUM, "Kinship Terminology in Tima," p. 1

women in the father's clan, who is roughly in the same age of the real paternal aunt. For the maternal aunt there is a different term, màà, as shown in table 1 above. The term màà is used for one's direct mother, one's father's wife, and as a general term of respect for any elderly women from mother's clan. All this is what Ayling means by vertical relationships in the above definition.[9]

In addition to the basic kinship terms, there are descriptive kinship terms which are composed of two or more basic terms. From a morphological point of view, there are two kinds of descriptive kinship terms: either the two lexemes are juxtaposed or they are separated by the genitival linker. The second part of those expressions with juxtaposed lexemes is either t̪ɛ́ɛ̀r or kɔ̀t̪ʊ̀, which may be glossed as "girl, female" or "man, male," respectively. As shown by Hellwig and Schneider-Blum, t̪ɛ́ɛ̀r and kɔ̀t̪ʊ̀ oscillate between the word classes of nouns and adjectives.[10] With regard to the descriptive terms presented in table 2, they function as adjectives modifying the preceding nouns.

Tabaq	abbrev.	gloss
t̪ɔ̀ɔ̀d̪ʊ̀–t̪ɛ́ɛ̀r	D	daughter , lit. child girl
ʊ́t̪ʊ̀–t̪ɛ́ɛ̀r	GD	granddaughter, lit. grandchild girl
ɪ́t̪ɛ̀–t̪ɛ́ɛ̀r	Z	sister, lit. sibling girl
ɪ́t̪ɛ̀–kɔ̀t̪ʊ̀	B	brother, lit. sibling man

Table 2. Kinship terms composed of two nouns

By contrast, in the case of genitive constructions there is a genitive marker that links the two terms; both parts are considered nouns, as shown in table 3.

Tabaq	abbrev.	gloss
áfá–n–t̪ɔ́ɔ́d̪ʊ̀ [áfánd̪ɔ̀ɔ̀d̪ʊ̀] father-GEN-child	FC	paternal half-sister, paternal half-brother
àfá–n–ɪ́ld̪ʊ́ father-GEN-woman	FW	father's wife
fáàfá–n–t̪ɔ́ɔ́d̪ʊ̀ [fáàfánd̪ɔ̀ɔ̀d̪ʊ̀] father.brother-GEN-child	FBC	cousin from father's side
fáàfá–n–t̪ɔ́ɔ́d̪ʊ̀-t̪ɛ́ɛ̀r [fáàfánd̪ɔ̀ɔ̀d̪ʊ̀t̪ɛ́ɛ̀r] father.brother-GEN-child-girl	FBD	female cousin from father's side
t̪íì–n–t̪ɔ́ɔ́d̪ʊ̀–kɔ̀t̪ʊ̀ [t̪îind̪ɔ́ɔ́d̪ʊ́kɔ̀t̪ʊ̄] mother.brother-GEN-child-man	MBS	male cousin from mother's side
t̪íì–n–t̪ɔ́ɔ́d̪ʊ̀–t̪ɛ́ɛ̀r [t̪îind̪ɔ́ɔ́d̪ʊ̀t̪ɛ́ɛ̀r] mother.brother-GEN-child-girl	MBD	female cousin from mother's side

Table 3. Descriptive kinship terms in genitive constructions

9 See fn. 4.
10 Hᴇʟʟᴡɪɢ & Sᴄʜɴᴇɪᴅᴇʀ-Bʟᴜᴍ, "There Is More Than One Way That Leads to Rome, Or: How to Convey Properties in Tabaq."

Tabaq	abbrev.	gloss
áɲá–n–ʈɔ́ɔ́d̪ʊ̀ [áɲánd̪ɔ̀ɔ̀d̪ʊ̀] father.sister-GEN-child	FZC	paternal aunt's child
áɲá–n–ʈɔ́ɔ́d̪ʊ̀–ʈɛ̀ɛr [áɲánd̪ɔ̀ɔ̀d̪ʊ̀ʈɛ́ɛr] father.sister-GEN-child-girl	FZD	paternal aunt's daughter
màà–n–ʈɔ́ɔ́d̪ʊ̀–kɔ̀ʈʊ̀ [màànd̪ɔ́ɔ́d̪ʊ̀kɔ̀ʈʊ̀] mother.sister-GEN-child-man	MZS	maternal aunt's son
màà–n–ʈɔ́ɔ́d̪ʊ̀–ʈɛ̀ɛr [màànd̪ɔ́ɔ́d̪ʊ̀ʈɛ́ɛr] mother.sister-GEN-child-girl	MZD	maternal aunt's daughter
kútú–n–ʈɔ́ɔ́d̪ʊ̀ [kútúnd̪ɔ́ɔ́d̪ʊ̀] female.sexual.organ-GEN-child	ZC	sister's child
kútú–n–ʈɔ́ɔ́d̪ʊ̀–ʈɛ̀ɛr [kútúnd̪ɔ́ɔ́d̪ʊ̀ʈɛ́ɛr] female.sexual.organ-GEN-child-girl	ZD	sister's daughter
íʈɛ̀–n–ʈɔ̀ɔ̀d̪ʊ̀ [íʈɛnd̪ɔ̀ɔ̀d̪ʊ̀] sibling-GEN-child	BC, ZC[11]	sibling's child
íʈɛ̀–n–ʈɔ̀ɔ̀d̪ʊ̀–ʈɛ̀ɛr [íʈɛnd̪ɔ̀ɔ̀d̪ʊ̀ʈɛ́ɛr] sibling-GEN-child-girl	BD, ZD	sibling's daughter
áfá–n–íʈɛ̀–à [áfáníʈà] father-GEN-sibling-PL	FSL	father's siblings
màà–n–íʈɛ̀–à [mààníʈà] mother-GEN-sibling-PL	MSL	mother's siblings

In Tabaq there are a number of descriptive terms, fáàfánʈɔ́ɔ́d̪ʊ̀ "father's brother's child," ʈîìnʈɔ̀ɔ̀d̪ʊ̀ "mother's brother's child," áɲánʈɔ̀ɔ̀d̪ʊ̀ "father's sister's child," màànʈɔ̀ɔ̀d̪ʊ̀ "mother's sister's child." These terms can each be modified by ʈɛ̀ɛr "girl, female" or kɔ̀ʈʊ̀ "man, male," which specify the gender if the speaker wants to be more specific, i.e. fáàfánʈɔ́ɔ́d̪ʊ̀ʈɛ̀ɛr "father's brother's daughter," ʈîìnʈɔ̀ɔ̀d̪ʊ̀kɔ̀ʈʊ̀ "mother's brother's son," etc.

Father's siblings' children, i.e., áɲánʈɔ̀ɔ̀ɲì "paternal aunt's children" and fáàfánʈɔ̀ɔ̀ɲì "paternal uncle's children," feel a special responsibility and respect towards each other, as well as mother's siblings' children, màànʈɔ́ɔ́ɲì "maternal aunt's children" and ʈîìnʈɔ́ɔ́ɲì "maternal uncle's children." It is possible to address all paternal uncles' children, maternal uncles' children, paternal aunts' children, and maternal aunts' children as ìʈà "brothers and sisters." However, if you want to be very specific, then you refer to them by their special descriptive kin terms. According to Ayling, these terms designate siblingship, i.e. the relationship between brothers and sisters, as stated at the beginning of this paper.

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11 The term íʈɛ̀–n–ʈɔ̀ɔ̀d̪ʊ̀ can be applied to both male and female cousins, but most of the time when you use it you mean the male cousin.

2.2 Affinal kin relations

Affinal relationships are "culturally defined connections based on marriage."[12] Affinity, which refers to the relationship between kɛ́ɛ́r "in-laws," is another type of relation within the kinship system in Tabaq, compared to blood relations which include descent relations and siblingship. Table 4 presents Tabaq's affinal terms. The last two terms in that table are descriptive terms consisting of two nouns, kɛ́ɛ́r and another noun specifying the gender, kɔ̀t̪ù "man, male" or íld̪ú "woman, female" just as in table 2 above, whereas the rest are single nouns. Some kinship terms carry more than one meaning, such as kɔ̀t̪ù "male, man" and "husband" and íld̪ú "woman, wife," and "female," as shown in table 4 below.

Tabaq	gloss
kɔ̀t̪ù	man, male, husband
íld̪ú	wife, woman, female
kɛ́ɛ́r	in-law
úlà	brother-in-law
wád̪á	father-in-law
bìd̪ù	co-wife
kɛ́ɛ́r–kɔ̀t̪ù	brother-in-law
kɛ́ɛ́r–íld̪ú	sister-in-law

Table 4. Affinal kin terms

In the last two terms, kɔ̀t̪ù and ɪld̪ú follow the term kɛ́ɛ́r to differentiate between brother-in-law and sister-in-law, since there is no morphological gender differentiation in the language.

2.3 Terms of social relation and stages of life

There are some other terms which refer to social relations and stages of life that are also recognized amongst Tabaq community members.

Tabaq	gloss
àfùnd̪ù	baby child
ánd̪ù	baby girl
t̪ʷàànd̪ù	infant
fúnd̪ùnd̪ù	last born
úùkwìjà	first born
fít̪ìl	male or female person living in cohabitation
kɔ̀t̪ù–m–búúr man-GEN-without	divorced woman
ɛ́ɛ́nd̪ù	bride, lit. new

Table 5. Terms designating social relations and stages of life

12 LAVENDA & SCHULTZ, *Core Concepts in Cultural Anthropology*, p. 139.

Tabaq	gloss
ɛ̀ɛnd̪ʊ̀–ŋ–kɔ̀t̪ʊ̀ [ɛ̀ɛnd̪ʊ̀ŋgɔ̀t̪ʊ̀]	bride-groom
new-GEN-man	

The first three terms in table 5 designate a children's stages of life; the two following refer to the sequence of birth, whereas the last four indicate social relations. There are some few cases in which children are referred to according to their social status, such as kúmúnt̪ɔ́ɔ́d̪ʊ̀ "adopted child."

3. Address terms versus reference terms

Generally, the address term with which someone speaks to or addresses his relatives is usually undifferentiated from the reference term with which one speaks about or refers to his kin. However, a possessive prefix is usually added before that term.

Table 6. Reference vs. address terms

address term	reference term example	gloss
fáàfá	à–n–fáàfá [àmbáàfá]	my paternal uncle
áɲá	tìì–n–áɲá	their paternal aunt
t̪ìì	t̪ɛ̀–n–t̪ìì [t̪ɛ̀ndìì]	his/her maternal uncle
kɛ́ɛ́r	wùù–n–kɛ́ɛ́r [wùùŋgɛ́ɛ́r]	your (PL) in-law
màà	ʊ̀ʊ̀–n–màà	our mother

4. Morphology of kinship terms in Tabaq

Jonsson claims that

> [w]ith few exceptions, the grammatical properties of kin terms have been only briefly touched upon in the literature, either as supplementary information in anthropological or pragmatic studies on kin terms, or in linguistic studies on possession where kin terms are mentioned as a group of NPs that, when expressing the possessee, show up in inalienable possessive constructions in many languages.[13]

> However, while kin term studies are common in anthropology, where the focus is on the cultural and social aspects of kinship systems and the meaning of kin terms, they are much less so in linguistics. And the works that have as their main topic the grammatical properties of kin terms are quite few.[14]

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13 JONSSON, *Some Grammatical Properties of Samoan Kin Terms*, p. 12.
14 Ibid., p. 1.

Having presented single lexemes and compound descriptive terms of the kinship system of Tabaq, I will now concentrate on the morphological properties of them.

4.1 Number marking of kinship terms

Morphologically, there are some inflectional possibilities with regard to number marking that are relevant to kinship terms in Tabaq. While some common nouns in Tabaq are marked for singulative or are transnumeral, this is not the case with regard to kinship terms. All number markers on Tabaq kinship terms are suffixes.. The choice of the plural marker is not predictable. There are two number marking patterns, plural suffixes attached to unmarked singular forms and a replacement pattern.

Thus, as shown in table 7, the plural suffixes are [ε, a, ɲa, ɪ, rɪ]; and the singular suffixes are [ɖʊ, ε, t̪ʊ]. Moreover, a replacement pattern is also attested for Tabaq kinship terms. Dimmendaal defines the replacement marking as a pattern "whereby both the singular and the plural are marked for number."[15] Table 7 shows two patterns, plural marking (pl.) as well as the replacement pattern (repl.).

SG	suffix	PL	suffix	pattern	gloss
áfá		áfá–έ	–ε	pl.	father
t̪íì		t̪ì–á [t̪ìʲá]	–a	pl.	maternal uncle
wàɖà		wáɖá–ɲá	–ɲa	pl.	father-in-law
útʊ̀		útʊ́–ɲá	–ɲa	pl.	grandchild
íl–ɖʊ́	–ɖʊ	íl–í	–ɪ	repl.	wife, woman
t̪ɔ̀ɔ̀–ɖʊ̀	–ɖʊ	t̪ɔ̀ɔ̀–ɲí	–ɲɪ	repl.	child, son
ít̪–ὲ	–ε	ít̪–à	–a	repl.	sibling
k̀ɔ̀–t̪ʊ̀	–t̪ʊ	k̀ɔ̀–rí	–rɪ	repl.	husband

Table 7. Number marking of single kin terms

The above table includes only the basic kinship terms. Descriptive kinship terms are quite different both in respect to the general construction and the placement of the plural markers. Descriptive kinship terms are either expressed by genitive constructions marked by the genitive marker –n– or two juxtaposed nouns, the second of which is used as a modifier. See table 8 for genitive constructions and table 9 for juxtaposed nouns.

SG	PL	abbrev.	gloss
áfá–n–íl–ɖʊ́	áfá–n–íl–í	FW	father's wife
father-GEN-wife-SG	father-GEN-wife-PL		

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15 Dimmendaal, "Number Marking and Noun Categorization in Nilo-Saharan Languages," p. 214.

SG	PL	abbrev.	gloss
ít̪–ɛ̀–n–t̪ɔ̀ɔ̀–d̪ʊ̀ sibling-SG-GEN-child-SG	ìt̪–à–n–t̪ɔ̀ɔ̀–ɲí sibling-PL-GEN-child-PL	SLC	sibling's child
fáàfá–n–t̪ɔ̀ɔ̀–d̪ʊ̀ paternal.uncle-GEN-child-SG	fáàfá–n–t̪ɔ̀ɔ̀–ɲí paternal.uncle-GEN-child-PL	FBC	paternal uncle's child (cousin)
màà–n–t̪ɔ̀ɔ̀–d̪ʊ̀ maternal.aunt-GEN-child-SG	màà–n–t̪ɔ̀ɔ̀–ɲí maternal.aunt-GEN-child-PL	MZC	maternal aunt's child (cousin)

Thus, as shown in table 8 above, in genitive constructions, the possessor precedes the possessee. Number can be marked both on the noun representing the possessor and the noun representing the possessee. Sometimes only the possessee is marked for number, as in the first example, and sometimes both the possessor and the possessee are marked for number. One can speak about "sibling's children" or "siblings' children," and "uncle's children" or "uncles' children," but it is not possible to say "fathers' wives," since one has only one áfá "(real) father." Hence, the possibility of marking both nouns for number is restricted by pragmatics.

However, when there are two juxtaposed nouns the second of which is used as a modifier, both nouns are marked for plural. The second noun agrees in number with the first one.

Table 9. Number marking of kin terms expressed by juxtaposed nouns

SG	PL	gloss
ít̪–ɛ̀–t̪ɛ́ɛ̀r sibling-SG-girl	ít̪–á–t̪ìrì sibling-PL-girl.PL	sisters
t̪ɔ̀ɔ̀–d̪ʊ̀–t̪ɛ́ɛ̀r child-SG-girl	t̪ɔ̀ɔ̀–ɲí–t̪ìrì child-PL-girl.PL	daughters
wɔ́ɔ́–kɔ̀t̪ʊ̀ grandparent-man	wɔ́ɔ́–ɛ́–kɔ̀–rì grandparent-PL-man-PL	grandfathers

4.2 Diminutive forms of kinship terms

The diminutive is the form of a noun that conveys the slight degree, young age, or small size of the object referred to by that word. With regard to Tabaq kinship terms, the diminutive forms of kin terms are used either to indicate young age, to show endearment or intimacy, or to tease and provoke. Depending on the context, diminutive forms of nouns may carry both negative and positive connotations. In fact, all the Tabaq diminutive forms of kinship terms may carry a negative connotation if the speaker (addresser) wants to tease, underestimate or provoke the addressee. For instance, áfáníti̪ɛ̀ndʊ̀,

literally meaning "father's small sibling," does not necessarily mean the younger brother of one's father; it may also be used pejoratively by denigrating him, especially when the addresser and the addressee are in the same age. At the same time this term can be used for endearment. All Tabaq kinship terms can be diminuted.

The diminutive kinship terms are formed by adding the singular suffix -nd̪ʊ to the singular form. The plural forms of these kinship terms are made diminutive by replacing the singular suffix by the plural suffix -nɪ. These markers are highly productive with regard to Tabaq nouns in general. That is, the singular diminutive marker is added to the singular kinship terms and the plural diminutive marker is added to the plural kinship terms, i.e., they come after the singular or plural suffix, respectively, of the basic kinship terms. Some morphophonological processes blur the picture, as is the case of t̪ɛ̀ɛ̀nd̪ʊ̀ "small girl" and t̪ìrì-nɪ́ "small girls," where some morphophonological alterations occur to the root noun which is t̪ɛ́ɛ̀r "girl."

SG	SG dim.	PL	PL dim.	gloss
kɛ́ɛ́r	kɛ́ɛ́r–nd̪ʊ̂ in.law-DIM.SG	kɛ́ɛ́r–à in.law-PL	kɛ̀ɛ̀r–a–nɪ́ in.law-PL-DIM.PL	in-law
úlà	úlà–nd̪ʊ̂ mother.in.law-DIM.SG	úlà–ʲɛ́ mother.in.law-PL	úlà–ʲɛ́–nɪ́ mother.in.law-PL-DIM.PL	mother in-law
wád̪á	wád̪à–nd̪ʊ̂ father.in.law-DIM.SG	wád̪à–ɲà father.in.law-PL	wád̪à–ɲà–nɪ́ father.in.law-PL-DIM.PL	father in-law
t̪ɛ́ɛ̀r	t̪ɛ́ɛ̀nd̪ʊ̀ girl.SG.DIM.SG	t̪ìrì girl.PL	t̪ìrì–nɪ́ girl.PL-DIM.PL	girl
t̪íì	t̪íì–nd̪ʊ̂ maternal.uncle-DIM.SG	t̪ì–à maternal.uncle-PL	t̪ì–à–nɪ́ maternal.uncle-PL-DIM.PL	maternal uncle
àfà–n–ī̪t̪–ɛ̀ father-GEN-sibling-SG	àfà–n–ìt̪–ɛ̀–nd̪ʊ̂ father-GEN-sibling-SG-DIM.SG	áfá–n–ít̪–à father-GEN-sibling-PL	áfá–n–ít̪–à–nɪ́ father-GEN-sibling-PL-DIM.PL	father's sibling

Table 10. Diminutive forms of kinship terms

SG	SG dim.	PL	PL dim.	gloss
fáàfá–n– t͡ɔ̀ɔ̀–dʊ̀ paternal. uncle-GEN- child-SG	fáàfá–n–t͡ɔ̀ɔ̀– dʊ̀–nd̪ʊ̄ paternal. uncle-GEN- child-SG-DIM. SG	fáàfá–n– t͡ɔ̀ɔ̀–ɲí paternal. uncle-GEN- child-PL	fáàfá–n–t͡ɔ̀ɔ̀– ɲí–nɪ paternal. uncle-GEN- child-PL-DIM. PL	uncle's child

5. Conclusion

In the preceding sections I have been trying to discuss kinship terms in the Tabaq language ethnolinguistically. Tabaq kinship terms have been addressed from three perspectives, that is, descent blood relations, affinal relations and other social relations to identify the kinship system in the Tabaq community. It has been concluded that kinship terms are generally marked for number. They can also be marked as diminutive. Culturally, the use of kinship terms is usually associated with respect that is based on age variation, social status, and intimacy. Thus, by using a kinship term to a non-relative, the speaker shows his respectful attitude toward the addressee.

As a result, it is found that Tabaq kinship terms play an essential sociocultural role in the Tabaq society. They are considered one of the vivid sets of Tabaq vocabulary reflecting cultural and ethnolinguistic aspects of the Tabaq community. Moreover, using a kinship term usually designates a proper positioning of the addressee in his social stance, showing mutual respect and solidarity, and expressing a defined hierarchy of the interlocutors in Tabaq society.

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An Initial Report on Tabaq Knowledge and Proficiency

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1. Introduction

The Tabaq language is part of the Kordofan Nubian (or Hill Nubian) group in South Kordofan, Sudan. The Tabaq people have preserved very clear traditions of their origin and history. Originally, these traditions state that the ancestors of the Tabaq people first migrated southwards from Abdelbakka in the Godayat region between Rahad and El-Obeid in northern Kordofan. This migration is said to have taken place under the Sultans of that Kingdom following the conquest of Kordofan by the Funj general Mohamed Abulkeilik in about 1748.[1] They moved first to Jebel Tukuma (16 kilometers east of Dilling),[2] stayed in Tukuma for a short time and then moved to their present location in the western part of the Nuba Mountains near the town of Lagawa.

At present, the Tabaq home area consists of four main villages. These villages are Shingil, Kambal, El-Igheebish, and Karkuur, in addition to a seasonal village called Nahala. The area of the Tabaq people is surrounded by areas belonging to other ethnic groups, such as the Tima area about 15 kilometers to the east, the Tulishi area about 15 kilometers to the south, the Abu Jinuk area to the west, the El-Hujeirat area to the northwest (about 50 kilometers away), and the Daju area about 40 kilometres to the south of the Tabaq area.

This paper attempts to investigate Tabaq demographic characteristics, language acquisition, bilingualism, and multilingualism. It aims at examining sociolinguistic factors influencing language shift and maintenance. Since Arabic is the official language and lingua franca in Sudan, the spread of the Arabic language among the Tabaq people receives special attention in this study.

1 Stevenson, *The Nuba People of Kordofan Province,* p. 38.
2 Nadel, *The Nuba,* p. 360.

The author of the present paper was supposed to conduct field-work in the Tabaq area in the Nuba Mountains.³ Unfortunately, war broke out in June 2011, at the same time that the researcher would have traveled to the Tabaq area. The author decided to carry out this study outside the Tabaq area because of safety concerns. This decision was furthermore justified by the fact that a majority of Tabaq speakers no longer lived in their homeland, but had migrated to cities in northern Sudan.

Tabaq is considered a poorly known language due to the few linguistic⁴ and sociolinguistic studies that have been carried out. In a previous sociolinguistic survey of the Nuba Mountains, which covered the Lagawa locality, Tabaq was only implicitly included, as it was considered as a dialect of the genetically closely related Dilling language. The result of that survey was published by the Institute of African and Asian Studies in 1979.⁵ The present study differs from that survey, as it concentrates on only one particular group, the Tabaq language community living outside of its homeland.

This paper is based on a sociolinguistic survey carried out as part of a linguistic research project documenting the Tabaq language. Written questionnaires were distributed and gathered between February and June 2012. Their distribution was conducted by a number of well-trained educated Tabaq people. The survey covered the Tabaq people in the following states of Sudan: Khartoum, White Nile, Jazeera, Gadarif, Kassala, and the Red Sea.

The questionnaire was designed for this study in 2011. This paper is an evaluation of the first part of the questionnaire which contains 25 questions on demographic characteristics of the respondents, e.g. sex, age, ethnic group, place of birth, social status such as profession, education, and language knowledge.

Before the start of fieldwork, the questionnaire was tested among ten members of the Tabaq community including men and women from different ages. The questionnaires were either administered in written form for educated people in the community, or orally for illiterate people with the help of research assistants who recorded the information of the respondents. The questionnaires were distributed for those aged 15 years and older; respondents less than 15 years of age may be influenced by the ideas of the person recording responses.

3 The present study is part of a project that documents the sociolinguistic situation of the Tabaq ethnic group. The title of the project is "Documenting Tabaq, a Hill Nubian language of the Sudan, in its sociolinguistic context." It was initiated by Gerrit J. Dimmendaal, University of Cologne. From 2011 to 2013 the project was sponsored by The Hans Rausing Endangered Languages Documentation Programme (ELDP) housed at the School of Oriental and African Studies, London.
4 The linguistic studies of Tabaq comprise ISMAIL, "The Noun in Tabag," HELLWIG & SCHNEIDER-BLUM, "Tabaq," and ISMAIL "Tabaq Kinship Terms."
5 BELL, *Language Survey of the Sudan*, p. 1.

2. Demographic descriptions

The respondents consisted of 559 members of the Tabaq community who lived outside of the Tabaq area. In the sample their age ranges from 15 to 90 years. There were slightly more male respondents than female.

2.1 Responses according to sex and age group
Table 1 provides the figures for the different ages and the proportions of male and female respondents.

age group	female	% of total	male	% of total	total	%
15–25	87	16.5	82	15.6	169	32.1
26–40	93	17.6	100	19.0	193	36.6
41–60	48	9.1	73	13.9	121	23.0
61+	13	2.5	31	5.9	44	8.3
total	241	45.7	286	54.3	527	100.0

Table 1. Respondents according to sex and age group*

It should be noted that there are variations in the age brackets of the four age groups; that means, the age bracket of the 15–25 age group equals 11 years. However, the age bracket of the 26–40 age group equals 15 years, and the age bracket of the 41–60 age group equals 20 years. It should also be noticed that there is a big difference in number between male and female in the old age category.

2.2 Responses according to education level and age group
Table 2 reveals that the Tabaq respondents are well educated: many respondents have completed primary school (37.6%) and a large proportion is receiving or has received secondary school education (38.9%) or even university education (17.8%). In sharp contrast, only 3.1% of Tabaq respondents are illiterate, the majority of them in the older generation.

education level	61+	%	41–60	%	26–40	%	15–25	%	total	%
illiterate	9	30.0	3	3.2	2	1.1	0	0.0	14	3.1
literacy class	2	6.7	5	5.3	0	0.0	0	0.0	7	1.5
Quran school	2	6.7	3	3.2	0	0.0	0	0.0	5	1.1
primary school	15	50.0	42	44.7	74	42.3	40	25.6	171	37.6

Table 2. Respondents according to education level and age groups†

* 32 missing responses (age not specified in 29 cases, sex not specified in 3 cases).
† 104 missing responses (age not specified in 29 cases, education level not specified in 75 cases).

education level	61+	%	41–60	%	26–40	%	15–25	%	total	%
secondary school	2	6.7	34	36.2	62	35.4	79	50.6	177	38.9
university	0	0.0	7	7.4	37	21.1	37	23.7	81	17.8
total	30	100.0	94	100.0	175	100.0	156	100.0	455	100.0

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2.3 Responses according to education level and sex

Table 3 also shows that the respondents have received a good education. In absolute numbers, there are more males than females who received or are receiving primary and secondary education (217 males as opposed to 147 females). Proportionally, however, the gap is not as big: 79.8% of all male respondents and 72.1% of all females fall into this category. A comparable result emerges for university education: this time, the proportions for males are slightly lower than for females, but again the difference is not big (15.8% of all males and 19.6% of all females attended or are attending university). Males were the only respondents who studied at Quran schools,[6] because this type of class is restricted to children between 7–12 years. And females constitute the majority of respondents who had attended literacy class. Literacy class is a class that enables illiterates to make use of basic education and pursue knowledge.[7]

Table 3. Respondents according to education level and sex*

education level	female	%	male	%	total	%
illiterate	9	4.4	6	2.2	15	3.2
literacy class	8	3.9	1	0.4	9	1.9
Quran school	0	0.0	5	1.8	5	1.1
primary school	77	37.7	101	37.1	178	37.4
secondary school	70	34.3	116	42.6	186	39.1
university	40	19.6	43	15.8	83	17.4
total	204	100.0	272	100.0	476	100.0

2.4 Responses according to profession and age

Occupation is often a key factor in assigning speakers to different socioeconomic classes because occupation has a major impact on an individual's status and life chances.[8] From table 4 it can be seen that equal proportions hold blue-collar and white-collar jobs. 25.3% were employed in blue-collar jobs. The most common of the blue-collar jobs was unskilled manual work or farm work (79.2%) and skilled manual work (working as mechanics, house builders, electricians,

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*   83 missing responses (sex not specified in 3 cases, education level not specified in 80 cases).
6   In Sudan, these schools are known as Khalwa. It teaches children to learn the Quran by heart and to learn how to read and write in Arabic.
7   Ministry of General Education, National Council for Literacy and Adult Education Report, 2008.
8   MEYERHOFF, Introducing Sociolinguistics, p. 196.

welders and blacksmiths) (20.8%). White-collar professions represented 24.3% of the responses. The most common white collar profession was work as soldiers/policemen (46.2%); another 26.5% of white-collar jobs was office work in private and public sectors such as railway and sea port corporations. Finally, teachers 10.2%, and retirees 17.1%, the majority of them having been employed in the military. Housewives were represented by 26.8%; the majority of them were between 26–60 years of age. Students were 23.7%; all of them were in the 15–25 and 26–40 age groups. With respect to sex, the majority of females were housewives (52.3%), or students (25%). The majority of males were students (19%), or employed in white-collar jobs as soldiers/policemen (17.3%).

profession	61+	%	41–60	%	26–40	%	15–25	%	total	%
white-collar	16	38.1	36	30.5	51	29.0	14	9.6	117	24.3
blue-collar	16	38.1	41	34.7	49	27.8	16	11.0	122	25.3
housewife	10	23.8	41	34.7	61	34.7	17	11.6	129	26.8
student	0	0.0	0	0.0	15	8.5	99	67.8	114	23.7
total	42	100.0	118	100.0	176	100.0	146	100.0	482	100.0

Table 4. Respondents according to profession and age*

2.5 Responses according to period and place of residence

Table 5 shows the current settlement patterns of the Tabaq community: the left-most column lists the places of residence (grouped into states). The majority of Tabaq people who migrated from their homeland live in towns. With the exception of West Kordofan state, they live in towns in the northern states. The periods of the settlement categories are based on the age group categories. But it should be noted that there are some crucial incidents that may have affected ethnic community stability and migration patterns at various times, such as the time of armed conflict erupting at the end of October 1989,[9] and the current conflict starting at the beginning of June 2011.[10] It should be noted that if the respondents moved more than once, only the last move was considered. For example, if they moved in 1986 to Khartoum and in 2005 they moved back to Tabaq and in 2011 they moved again to Madani, we only consider the last move.

The majority of the respondents were born outside the Tabaq area (60.7%). Of those respondents who left Tabaq, only very few migrated before 1951 (slightly less than 1%): the 4 respondents reside in the cities of Rabak and Gadarif. Less than 1% reported that

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* 77 missing responses (age not specified in 29 cases, profession not specified in 48 cases)
9   [Africa Watch Committee], "Sudan," p. 8.
10 Komey, "The Historical and Contemporary Basis of the Renewed War in the Nuba Mountains," p. 43.

they still live in Tabaq: this is not surprising because the survey was conducted outside of the Tabaq area, and these 3 respondents came temporarily to Khartoum, Gadarif, and Rabak. 10% of the respondents left Tabaq during the period 1952–1971. 14.3% of the respondents moved from Tabaq during the period 1972–1985; they settled in the following states: White Nile, Khartoum, Gadarif, and Kassala (mainly in Khashm el-Girba) states. And 14.1% of the respondents moved from Tabaq during 1986–2012 and settled mainly in the following states: Khartoum, White Nile, Kassala (mainly in Khashm el-Girba) states.

Note that the majority of respondents migrated to Khartoum (31.8%), followed by migration to White Nile (24.8%), Gadarif (18.6%), Red Sea (11.6%), and Kassala (9.1%). But note that these results may not always be representative, because the survey was not conducted in all states. For example, West Kordofan recorded a much lower proportion than the other states, i.e. less than 1 percent. This is because the survey did not cover this state. But at the same time, West Kordofan is not an ideal place for Tabaq people to move in order to improve their living conditions, find better education or cure themselves. Similarly with Jazeera (3.7%). The majority of Tabaq people who live in Jazeera State live in Madani city, the capital of the state, where they depend on white collar jobs either in the public or the private sector, and these jobs are not easy to find there.

Table 5. Respondents according to period and place of residence*

current residence	since birth	%	before 1951	%	1952–71	%
Tabaq	0	0.0	0	0.0	0	0.0
West Kordofan	0	0.0	0	0.0	0	0.0
North Kordofan	2	0.5	0	0.0	0	0.0
Khartoum State	146	33.2	0	0.0	16	3.6
White Nile	33	7.5	2	0.5	14	3.2
Jazeera (Madani)	10	2.3	0	0.0	4	0.9
Blue Nile	0	0.0	0	0.0	0	0.0
Gadarif	36	8.2	2	0.5	5	1.1
Kassala (Khashm el-Girba)	22	5.0	0	0.0	3	0.7
Red Sea (Port Sudan)	18	4.1	0	0.0	2	0.5
total	267	60.7	4	0.9	44	10.0

* Note that only 78.3% of the respondents reported on when they took up their current residence. For example 79.8% of the Khartoum state respondents replied to the question about the date of moving from the Tabaq area, and among them 28.8% were born in the Tabaq area. Some respondents were excluded because their answers did not include the date of moving from Tabaq. For example, they answered the question about the date of moving from Tabaq as follows: I moved when I was married, since the death of my father, years ago, or I don't remember. The majority of the respondents (33.2%) who recorded the period and current place of residence were the Khartoum state respondents.

current residence	1972–85	%	1986–2012	%	total	%
Tabaq	1	0.2	2	0.5	3	0.7
West Kordofan	0	0.0	2	0.5	2	0.5
North Kordofan	0	0.0	0	0.0	2	0.5
Khartoum State	15	3.4	28	6.4	205	46.6
White Nile	18	4.1	9	2.0	76	17.3
Jazeera (Madani)	2	0.5	4	0.9	20	4.5
Blue Nile	0	0.0	1	0.2	1	0.2
Gadarif	12	2.7	4	0.9	59	13.4
Kassala (Khashm el-Girba)	10	2.3	8	1.8	43	9.8
Red Sea (Port Sudan)	5	1.1	4	0.9	29	6.6
total	63	14.3	62	14.1	440	100.0

2.6 Responses according to period of residence and sex

Table 6 shows patterns of residence according to sex. As we can see from the table, the majority of the respondents of both sexes were born outside the Tabaq area; that is, 69.1% of females and 59.1% of males. Less than 40% of respondents were born in Tabaq and migrated to reside outside the Tabaq area. A low rate of migration for both sexes was recorded for the period before 1951. A high rate of migration was recorded for males who migrated from the Tabaq area during the period between 1972–1985 (15.4%). Females recorded a high rate of migration from their homeland to their current residence during the periods between 1972–1985 and 1986–2012. In the next section we will see the reasons for migration out of Tabaq.

sex	since birth	%	before 1951	%	1952–71	%
female	152	69.1	1	0.5	17	7.7
male	150	59.1	3	1.2	27	10.6
total	302	63.7	4	0.8	44	9.3
sex	1972–85	%	1986–2012	%	total	%
female	25	11.4	25	11.4	220	100.0
male	39	15.4	35	13.8	254	100.0
total	64	13.5	60	12.7	474	100.0

Table 6. Period of residence according to sex

2.7 Reasons for migrating to the current place of residence

There are often a number of reasons for people leaving their native lands.[11] This is also true for the Nuba Mountains region, where thousands of people have left their homelands in search of better jobs and educational opportunities and a more secure life.

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11   MAFUKIDZE, "A Discussion of Migration and Migration Patterns and Flows in Africa," p. 124.

In this section, I will outline the reasons why Tabaq people have moved to their current places of residence. The primary reasons are presented in table 7 below.

Table 7. Reasons for migrating to the current place of residence

state	marriage	%	education	%	economical	%
West Kordofan	0	0.0	0	0.0	0	0.0
Khartoum State	10	4.1	16	6.6	43	17.8
White Nile	7	2.9	11	4.5	39	16.1
Jazeera (Madani)	1	0.4	1	0.4	7	2.9
Gadarif	7	2.9	5	2.1	29	12.0
Kassala (Khashm el-Girba)	4	1.7	5	2.1	9	3.7
Red Sea (Port Sudan)	1	0.4	3	1.2	20	8.3
total	30	12.4	41	16.9	147	60.7

state	medical	%	war related	%	total	%
West Kordofan	0	0.0	1	0.4	1	0.4
Khartoum State	1	0.4	7	2.9	77	31.8
White Nile	2	0.8	1	0.4	60	24.8
Jazeera (Madani)	0	0.0	0	0.0	9	3.7
Gadarif	0	0.0	4	1.7	45	18.6
Kassala (Khashm el-Girba)	0	0.0	4	1.7	22	9.1
Red Sea (Port Sudan)	0	0.0	4	1.7	28	11.6
total	3	1.2	21	8.7	242	100.0

It is clear from table 7 that only an insignificant proportion of migrants (1.2%) migrated for medical reasons. As can be seen from the table, economic opportunities (job assignments, search for a better life, improving living situations) are the most important reasons: 60.7% of the respondents reported that they migrated for economic opportunities. Migration for education opportunities (16.9%) proved to be a stronger factor than migration to escape war (8.7%). That is to say, most Tabaq migrants can be defined as voluntary migrants. Furthermore, 12.4% of respondents migrated for reasons of marriage. Note that women are more likely than men to migrate in order to join their spouses (rather than for economic reasons).

2.8 Marriage patterns
This section looks at marriage patterns, investigating the proportions of exogamous and endogamous marriages among the Tabaq. Callister et al. refer to intermarriage as exogamous (meaning, a marriage where the two partners come from different ethnic

groups).[12] In contrast, an endogamous marriage would be where both partners come from the same ethnic group. Mugaddam[13] shows that intermarriage between ethnic groups contributes significantly to language shift. That is to say, when ethnic communities are small, there is a high possibility that marriages will be exogamous. And exogamous marriage, in turn, is one factor contributing to the use of a common lingua franca, which is also aided by rapid urbanisation and the growth of commercial centers.[14] And all this, in turn, leads to language shift. According to Callister et al.,[15] this will have an impact on future generations, which become either assimilated into a dominant culture or acculturated.

The present section provides information on the marriage patterns of a sample of Tabaq respondents outside the Tabaq area.

2.8.1 Marriage patterns of Tabaq respondents

Table 8 reveals that endogamous marriage is a common phenomenon among Tabaq respondents; 95.2% of the respondents' mothers and 96.4% of the respondents' fathers are from the Tabaq ethnic group. The recorded intermarriages cover spouses from Fur, Daju, Zaghawa, Abu Jinuk, Kujuriya, Wali, and Masalit.

The figures below illustrate intermarriage patterns among the respondents. When reading the next two sections, the following two points should be kept in mind:

1. intermarriages constitute only a small proportion of all marriages (respondents reported a non-Tabaq origin for 27 mothers and 20 fathers); and
2. the ethnic origin of the non-Tabaq parent was only known in a few cases (for 13 mothers and 4 fathers).

ethnic group	mother's origin	%	father's origin	%
Tabaq	535	95.2	542	96.4
Daju	4	0.7	0	0.0
Abu Jinuk	0	0.0	1	0.2
Kujuriya	1	0.2	0	0.0
Wali	0	0.0	1	0.2
Fur	3	0.5	2	0.4
Zaghawa	4	0.7	0	0.0
Masalit	1	0.2	0	0.0
unknown	14	2.5	16	2.8
total	562	100.0	562	100.0

Table 8. Marriage patterns of Tabaq respondents

12 CALLISTER et al. *Ethnic Intermarriage in New Zealand*, p. 2.
13 MUGADDAM, *Language Maintenance and Shift in Sudan*, p. 121.
14 BATIBO, *Language Decline and Death in Africa*, p. 94.
15 CALLISTER et al. *Ethnic Intermarriage in New Zealand*, p. 6.

2.8.2 Intermarriage with respect to mothers' origins

As we can see from fig. 1, in the case of exogamous marriages, Ta-
baq men marry both from within the Nuba Mountains (Daju and
Kujuriya) and from Darfur (Zaghawa and Masalit). Interestingly,
Gadarif[16] is the current residence of all Tabaq respondents whose
mothers are not Tabaq.[17] The reason behind this may be, as pointed
out by Miller,[18] that the agricultural development of both the irri-
gated schemes and mechanized farming in the 1960s–70s attracted a
large number of landless wage labourers mainly from Western Su-
dan and Western Africa which led to the development of Gadarif. All
respondents whose mothers are non-Tabaq claim that they belong
to Tabaq themselves (i.e., to the ethnic group of their fathers).

Figure 1.
Intermarriage
with respect to
mother's origins
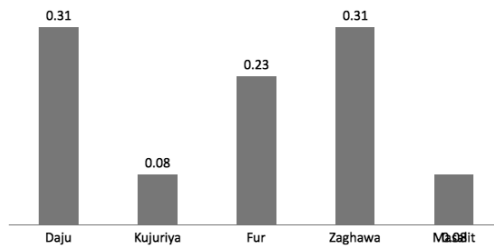
Figure 2.
Intermarriage
with respect to
father's origins
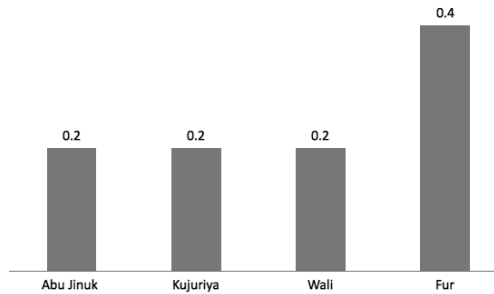
2.8.3 Intermarriage with respect to fathers' origins

Fig. 2 shows that Tabaq women also marry both from their own lin-
guistic group (i.e. from the Kordofan Nubian groups: Abu Jinuk, Ku-
juriya and Wali) and from Fur. Khartoum is the current residence of
almost all respondents who reported that their fathers are not from
Tabaq (with the exception of one respondent whose father belongs

16 Gadarif is situated in the eastern part of Sudan.
17 This is because of the influence of Arab ideology. An individual is considered to belong to
    the Tabaq ethnic group if his/her father originates from that ethnic group.
18 Miller, "Power, Land and Ethnicity in the Kassala-Gedaref States," p. 17.

to Abu Jinuk and who resides in Khashm el-Girba). All respondents whose fathers are non-Tabaq claim that they belong to their fathers' ethnic group, i.e., they do not consider themselves Tabaq.

3. Language knowledge and proficiency

Language proficiency, as it is used in this study, means to "use speech fluently and in such a way that it effectively conveys the intended meanings or messages."[19] In this study, respondents were asked three questions about their language knowledge: about what languages they speak, which languages they understand but do not speak (i.e. passive knowledge) and where they learnt each language. They were also asked four questions about their language fluency in each language they speak, about how well they spoke Tabaq and Arabic before migrating from their homeland in the Tabaq area, about how often they use Tabaq and Arabic now and about whether they find it easy or difficult to speak Tabaq with a Tabaq person who spent most of his life inside or outside the Tabaq area. Table 9 below gives the details of language knowledge and proficiency according to sex and age groups.

3.1 Language knowledge and proficiency according to sex and age group
The data in table 9 illustrates that a large proportion of both males and females are monolingual Arabic speakers. This proportion is especially high amongst the two younger age groups (covering 71% of the 15–25 year olds, and 62% of the 26–40), while only 30% of the age group 41+ is monolingual in Arabic. These figures thus indicate a language shift to Arabic among the younger (15–25) and middle-aged groups (26–40) in both sexes. Furthermore, Arabic is represented in all patterns of language knowledge among all respondents.

	female					
language	61+	%	41–60	%	26–40	%
Tabaq only	0	0.0	0	0.0	0	0.0
Tabaq/Arabic	8	61.5	12	25.0	8	8.6
Arabic/Tabaq	1	7.7	18	37.5	19	20.4
Arabic only	4	30.8	13	27.1	60	64.5
Arabic/English	0	0.0	2	4.2	3	3.2
Tabaq/Arabic/English	0	0.0	2	4.2	0	0.0
Arabic/Tabaq/English	0	0.0	1	2.1	3	3.2
total	13	100.0	48	100.0	93	100.0

Table 9. Language knowledge and proficiency according to sex and age group

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19 Arua & Magocha, "Patterns of Language Use and Language Preference of Some Children and Their Parents in Botswana," p. 454.

language	female 15–25	%	un-known	%	total	%
Tabaq only	0	0.0	0	0.0	0	0.0
Tabaq/Arabic	10	11.5	5	33.3	43	16.8
Arabic/Tabaq	9	10.3	5	33.3	52	20.3
Arabic only	61	70.1	4	26.7	142	55.5
Arabic/English	7	8.0	1	6.7	13	5.1
Tabaq/Arabic/English	0	0.0	0	0.0	2	0.8
Arabic/Tabaq/English	0	0.0	0	0.0	4	1.6
total	87	100.0	15	100.0	256	100.0

language	male 61+	%	41–60	%	26–40	%
Tabaq only	0	0.0	0	0.0	0	0.0
Tabaq/Arabic	14	45.2	16	21.9	7	7.0
Arabic/Tabaq	9	29.0	14	19.2	9	9.0
Arabic only	7	22.6	26	35.6	60	60.0
Arabic/English	0	0.0	11	15.1	13	13.0
Tabaq/Arabic/English	1	3.2	5	6.8	6	6.0
Arabic/Tabaq/English	0	0.0	1	1.4	5	5.0
total	31	100.0	73	100.0	100	100.0

language	male 15–25	%	un-known	%	total	%
Tabaq only	0	0.0	0	0.0	0	0.0
Tabaq/Arabic	11	13.4	4	23.5	52	17.2
Arabic/Tabaq	5	6.1	6	35.3	43	14.2
Arabic only	59	72.0	5	29.4	157	51.8
Arabic/English	7	8.5	2	11.8	33	10.9
Tabaq/Arabic/English	0	0.0	0	0.0	12	4.0
Arabic/Tabaq/English	0	0.0	0	0.0	6	2.0
total	82	100.0	17	100.0	303	100.0

The data in table 9 shows that there are no monolingual speakers of Tabaq. And while Tabaq was reported as a first language (L1), that is, a language that a child acquires first as a mother-tongue,[20] and a second language (L2), that is, a language that is acquired later than the first language,[21] among all age groups and sexes, there is a clear decrease in its knowledge among the younger generations: 62% of the 41+ age group, but only 28% and 12% of the two younger age groups, respectively, reported any knowledge of Tabaq. English was found to be the L2 and L3 in some bilingual and trilingual cases.

20 Lyon, *Becoming Bilingual*, p. 48.
21 Cunningham-Andersson & Andersson, *Growing Up with Two Languages*, p. 151.

3.2 Comparison of proficiency in Tabaq and Arabic according to level of education

Table 9 has shown that language proficiency correlates strongly with age group (but much less strongly with sex). In this section we now look at a correlation with the level of education. Table 10 provides a comparison between language proficiency in Tabaq (as one of the languages spoken) and Arabic (as the only language spoken) among respondents according to level of education.

education level	Tabaq	%	Arabic only	%	total	%
Illiterate	9	64.3	5	35.7	14	100.0
Literacy class	4	44.4	5	55.6	9	100.0
Quran class	3	60.0	2	40.0	5	100.0
Primary school	64	36.0	114	64.0	178	100.0
Secondary school	37	19.9	149	80.1	186	100.0
University	8	9.6	75	90.4	83	100.0
total	125	26.3	350	73.7	475	100.0

Table 10. Comparison between language proficiency in Tabaq and Arabic among respondents according to educational level

Table 10 shows clearly that education plays an important role in the process of language shift. There seems to be a positive correlation between education level and the use of Arabic only, suggesting that advances in education lead to an increase in the use of Arabic. This is not surprising, since Arabic is the dominant language in the whole country. It should be noticed that respondents who claimed Tabaq knowledge also know Arabic.

3.2.1 Linguistic repertoire of the respondents

Monolingualism, as defined by Batibo,[22] that is, the knowledge of only one language, is rare as individuals are often exposed to at least one neighbouring language or to the major language of their area in addition to their mother-tongue. According to Batibo, monolingualism has two phases. The first phase is a phase in which the speakers are conservative and not yet exposed to the dominant language, where they live in their rural homeland, have not migrated or are not exposed to formal education; in this case, the majority may speak only their mother-tongue. And the last phase is a phase in which the dominant language is replacing the mother-tongue in its domains of use and becomes the first language of the community. In this case the mother-tongue can be described as dead, as it is no longer used in the community, although the community may have kept some of their language traditions for ceremonial purposes. This process of language shift from monolingualism in one language to monolin-

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22 BATIBO, *Language Decline and Death in Africa*, p. 16.

gualism in another includes a number of different phases; that is to say, in between these two phases there are stages in which the community shifts from their mother-tongue to the second language. In these stages, the speakers are bilingual. After speakers acquire the second language, this language may compete with the first language in some domains and eventually may dominate all domains, especially if the second language has power or is well supported institutionally. This stage is reached when the second language becomes the primary language, that is to say, the mother-tongue is acquired as a second language.[23]

In the next section we will look at the stages of gradual shift from Tabaq to Arabic.

3.2.2 Distribution of multilingualism according to age groups
The following table investigates the distribution of multilingualism among respondents broken down according to age group.

Table 11. Distribution of multilingualism according to age groups

pattern	61+	%	41–60	%	26–40	%
monolingual	11	25.0	39	32.2	120	62.2
bilingual	32	72.7	73	60.3	59	30.6
trilingual	1	2.3	9	7.4	14	7.3
total	44	100.0	121	100.0	193	100.0
pattern	15–25	%	un-known	%	total	%
monolingual	120	71.0	9	28.1	299	49.9
bilingual	49	29.0	23	71.9	236	39.4
trilingual	0	0.0	0	0.0	24	4.0
total	169	100.0	32	100.0	599	100.0

Looking at table 11 on language knowledge and proficiency, three patterns of language use are evident. By far the most dominant language use pattern is monolingual: note that we know from the discussion of table 9 that "monolingual" means monolingual in Arabic. This pattern is not surprising, because Arabic is the sole official language of administration in Sudan.[24] Since independence, the policy of governments in the Sudan has been to replace the indigenous non-Arabic languages with Arabic in all domains of official interaction, especially in education, where this ideologised language policy is being implemented.[25] It is used extensively in all domains including the media, the government and administration, the army, the education and the economy. Arabic is the main language of higher education throughout the country. Knowledge of Arabic is a prereq-

23 Mahmud, *Arabic in the Southern Sudan,* p. 94.
24 Berair, *Linguistic Politics in Sudan,* p. 89.
25 Nyombe, "Survival or Extinction," p. 111.

uisite for employment, and proficiency in the language is required for positions in the civil service, the media, and in any other domains dealing with the public such as hospitals and banks. In addition Arabic is used as a medium of instruction in many schools, which has the potential to strongly influence the development of language proficiency.[26] Furthermore, Arabic is the lingua franca of the whole country. The predominance of Arabic facilitates the language shift towards Arabic since Tabaq receives no institutional support.

As table 11 shows, the next dominant pattern is bilingualism in Arabic/Tabaq, Tabaq/Arabic and Arabic/English (39.4%). We know from table 9 that there are only few respondents who reported English as a second language. This is because English is learnt as a subject mainly at school and university, and English is not a language of wider communication in Sudan. If we exclude the few respondents who claim knowledge of English, the pattern includes bilingualism in Arabic/Tabaq and in Tabaq/Arabic. This bilingual pattern is less dominant in the younger age groups (in favour of monolingualism in Arabic) and the responses thus indicate that bilingualism may indeed be a transitional stage towards Arabic monolingualism.

The third pattern is trilingualism in Arabic/Tabaq/English or Tabaq/Arabic/English. English was found to always be the third language among those claiming knowledge of three languages. With the exception of 6 respondents, all those who reported English knowledge either studied at secondary school or at university. One may thus claim that English knowledge correlates with education level among the Tabaq community. It should be noted that not all respondents who claimed English knowledge are actually proficient in it because they do not have many opportunities to interact with English speakers and they only learned English as a subject at school.

Interestingly, there is a noticeable absence of knowledge of any other indigenous Sudanese language. No respondent claimed to know any of the languages that are spoken in neighbouring villages.

3.2.3 Distribution of Tabaq, Arabic, and English as L1 (or mother-tongue), L2, and L3

It is usually expected that the gradually decreasing use of the L1 may eventually result in a language shift, that is, in the monolingual use of the former L2. This is a situation in which a L2 becomes the primary language. This shift is facilitated if the L2 is the language of power so that speakers can accomplish most of life's necessities without their mother-tongue. This is the situation of Arabic in Sudan.[27]

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26 Gibbons & Ramirez, *Maintaining a Minority Language,* p. 81.
27 Miller & Caubet, "Arabic Sociolinguistics in the Middle East and North Africa," p. 247.

Based on this, we can hypothesize that the spread of Arabic as a lingua franca and towards most domains of language use at the expense of Sudanese indigenous languages has exposed these languages to the risk of endangerment.

The following table investigates the distribution of Tabaq, Arabic and English as L1, L2 and L3 as reported by respondents.

Table 12.
Distribution of
Tabaq, Arabic,
and English as L1
(mother-tongue),
L2, and L3

language	L1	%	L2	%	L3	%	total	%
Tabaq	109	19.5	105	18.8	0	0.0	214	38.3
Arabic	450	80.5	109	19.5	0	0.0	559	100.0
English	0	0.0	46	8.2	24	4.3	70	12.5

Table 12 indicates that only 38.3% of the respondents claim to speak Tabaq at all, all respondents reported that they speak Arabic and only 12.5% that they speak English. In more detail; only 19.5% of the respondents claimed the use of Tabaq as a mother-tongue and only 18.8% claimed the use of Tabaq as an L2; there are no respondents who reported to use Tabaq as L3. The majority of the respondents reported that they use Arabic as L1, that is 80.5% and only 19.5% reported the use of Arabic as L2 (and all of those claim the use of Tabaq as mother-tongue). No respondents claims the use of Arabic as L3. Only 8.2% of the respondents (those who shifted to Arabic) claim the use of English as an L2 and less than (5%) reported the use of English as an L3. This table shows clearly that the majority of Tabaq respondents have shifted to Arabic; that is to say, Arabic has replaced Tabaq as an L1 for most Tabaq people.

3.2.4 Passive knowledge

Passive knowledge in this study means being able to understand the language but not being able to speak it. This characterization is based on Mesthrie[28] who defines "passive bilinguals" as those who have a full understanding of the ancestral language, but are unable to use it in productive speech, i.e., they can understand the language but have limited production skills. According to Skutnab-Kangas,[29] passive knowledge often leads to the death of minority languages.

In our survey, respondents were asked a closed question which focuses on spoken language skills only. The crucial question was "List all the languages or dialects you understand (but do not speak)."

In table 13 we illustrate the responses with regard to passive knowledge of languages.

28 Mesthrie, "Language Change, Survival, Decline," p. 173.
29 Skutnab-Kangas, Linguistic Genocide in Education, p. 369.

	Tabaq					
age group	female	%	male	%	total	%
15–25	33	29.7	32	30.8	65	30.2
26–40	55	49.5	42	40.4	97	45.1
41–60	20	18.0	22	21.2	42	19.5
61+	3	2.7	8	7.7	11	5.1
total	111	100.0	104	100.0	215	100.0
	Kordofan Nubian					
age group	female	%	male	%	total	%
15–25	0	0.0	0	0.0	0	0.0
26–40	3	75.0	2	22.2	5	38.5
41–60	0	0.0	3	33.3	3	23.1
61+	1	25.0	4	44.4	5	38.5
total	4	100.0	9	100.0	13	100.0
	English					
age group	female	%	male	%	total	%
15–25	4	44.4	0	0.0	4	33.3
26–40	5	55.6	3	100.0	8	66.7
41–60	0	0.0	0	0.0	0	0.0
61+	0	0.0	0	0.0	0	0.0
total	9	100.0	3	100.0	12	100.0

Table 13. Passive knowledge of languages according to sex and age groups

Table 13 shows that Tabaq respondents reported passive knowledge in three languages, including their language of origin, i.e. Tabaq. Note that the percentages in table 13 reflect percentages of the over-all number of respondents in each age/sex category. Altogether, there are 214 Tabaq respondents who claim active knowledge, and 215 respondents who have a passive knowledge in Tabaq (leaving 130 respondents without any knowledge). Only 13 respondents reported passive knowledge in other Kordofan Nubian languages. And only 12 respondents reported passive knowledge in English. The table also gives details of passive knowledge among different age groups and sexes in each of the languages, i.e. Tabaq, Kordofan Nubian, and English.

Table 12 indicates that the highest ratio of passive knowledge in Tabaq is reported by middle-aged speakers (26–40). One may ask why middle aged speakers scored a higher proportion of passive knowledge in Tabaq than the younger generation. This is probably because the younger generation has already shifted completely to Arabic, that is to say, 134 out 169 respondents of the younger genera-tion shifted to Arabic, and only 35 of the respondents claimed to be speaking any Tabaq, see table 9. Note that there seem to be more females than males who have a passive knowledge of Tabaq (in all age groups). This is interesting, because there seem to be no signifi-

cant differences between female and male respondents in terms of their active knowledge of Tabaq; see table 9. This difference in passive knowledge, however, may indicate that females still play some role in guarding their society's values.

Table 13 also shows that some respondents have a passive knowledge in other Kordofan Nubian languages, but they did not specify which languages. The largest proportion (11.4%) was in the older generation, with slightly more males than females.

With regard to passive knowledge in English there are slightly more females than males, and the two older age groups did not report any passive knowledge of English.

3.3 Settings for acquiring language knowledge

This section will investigate where respondents learnt the languages which they speak, i.e. Tabaq, Arabic, and English. This is considered to be relevant because people grow up in homes where "the images of childhood, expressed in myths, proverbs and beliefs, patterns of childrearing and education are powerful bases of a primary identity that become norms and values for later life."[30] If their language, as Fishman[31] proposes, is being passed on in the home domain, there is some chance of long-term survival of the language. Otherwise efforts to prop up the language elsewhere (e.g. in school, or at a place of worship) may end up being largely symbolic and ceremonial. In cases where parents are native speakers of the minority language, the children may learn the majority language for the first time not in the home, but in the neighbourhood, playground or when they start at pre-school or school. In the case of Sudan, Arabic is the majority language, and minority groups may encourage their children to use Arabic in a number of domains, possibly even the home domain. On the other hand, English was the language of instruction in government secondary school[32] up to 1969; the majority of older elites thus have a good command of it, and it is taught as a subject at the intermediate level.

Attempts to Arabicize secondary education were started when the first Conference of Secondary Schools Teachers[33] was held in 1965. The conference decided that the Arabic language would be the medium of instruction in secondary schools from June 1965 onwards.[34] Since that time Arabic has been the language of instruction from primary level up to secondary level of education in the northern part of the Sudan.[35] This language policy, known as the

30 Lamb & Hwang, "Images of Childhood," p. 3.
31 Fishman, *Reversing Language Shift,* p. 5.
32 Thelwall, *Aspects of Language in the Sudan,* p. 2.
33 Mugaddam, *Language Maintenance and Shift in Sudan,* p. 56.
34 Abdelhay, *The Politics of Language Planning in the Sudan,* p. 160.
35 Thelwall, *Aspects of Language in the Sudan,* p. 2.

Arabicization project, which led to the domination of Arabic and the exclusion of linguistic minorities, was accompanied by attempts to Sudanize the civil service, i.e. to liberate the country from the colonial legacy.[36] According to Abdelhay,[37] the policies of Arabicisation, especially of higher education since 1989, have had a negative impact on the status of the English language. However, the Naivasha peace accord signed in 2005 has brought English back as an official language, side by side with Arabic, and English is still taught as a subject on all levels of education from primary to university levels.

All respondents were asked about where they learnt the languages which they know. Note that table 14 includes all respondents who have indicated either active or passive knowledge of a language. In their answers to this question, 377 of the respondents (that is, 93.3%) reported that they have (actively or passively) learned the Tabaq language in their homes. Only 21 of them (that is, 5.2%) reported that they learned Tabaq at school; probably, they learnt it from their friends and colleagues, because Tabaq has not been introduced in the educational system. Only 6 respondents (that is 1.5%) reported that they learned Tabaq in other places, such as at the place of work, from neighbours, etc.

By contrast, the overwhelming majority (that is, 57.9%) of the respondents reported that they learnt Arabic at school. However, a fairly large proportion (that is, 36.2%) reported that they learnt Arabic from their parents in the home. About 25 of the respondents (that is, 5.8%) reported that they learnt Arabic in other places; such as at markets where members of different ethnic communities meet.

Forty-four Tabaq respondents claimed that they gained English knowledge, mostly at school (that is, 93.2%). Only 3 people claimed that they learned English in other places. This is a reasonable distribution because English learning is available in many parts of the Sudan and it is used to varying degrees,[38] for example, at the British Council in Khartoum and English teaching centers in Khartoum and other cities. None of the respondents claimed that they learnt English at home. Table 14 below gives the details about the settings for acquisition.

36 Berair, *Linguistic Politics in Sudan,* p. 89.
37 Abdelhay, *The Politics of Language Planning in the Sudan,* p. 36.
38 Abu-Baker & Abu-Manga, "Language Situation and Planning in the Sudan," p. 4.

Table 14. Settings
for acquiring
language
knowledge
according to age
groups

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Tabaq								
Age group	home	%	school	%	other	%	total	%
15–25	97	89.0	11	10.1	1	0.9	109	100.0
26–40	144	92.9	10	6.5	1	0.6	155	100.0
41–60	96	97.0	0	0.0	3	3.0	99	100.0
61+	40	97.6	0	0.0	1	2.4	41	100.0
total	377	93.3	21	5.2	6	1.5	404	100.0
Arabic								
Age group	home	%	school	%	other	%	total	%
15–25	39	30.5	84	65.6	5	3.9	128	100.0
26–40	45	27.3	117	70.9	3	1.8	165	100.0
41–60	50	49.5	38	37.6	13	12.9	101	100.0
61+	21	61.8	9	26.5	4	11.8	34	100.0
total	155	36.2	248	57.9	25	5.8	428	100.0
English								
Age group	home	%	school	%	other	%	total	%
15–25	0	0.0	14	93.3	1	6.7	15	100.0
26–40	0	0.0	15	100.0	0	0.0	15	100.0
41–60	0	0.0	12	85.7	2	14.3	14	100.0
61+	0	0.0	0	0.0	0	0.0	0	100.0
total	0	0.0	41	93.2	3	6.8	44	100.0

3.4 Language fluency

Language fluency in this study means the degree of knowledge of Tabaq and Arabic that is claimed by the respondents. It deals with the question of how well a respondent speaks Tabaq or Arabic. The questionnaire asked respondents to rate their fluency based on the following scales: "fluent," "intermediate" or "little." Table 15 summarizes the answers of all respondents who claimed either active or passive knowledge of Tabaq and/or Arabic.

As indicated in table 15 below, only 109 respondents (that is, 26.8%) reported that they speak Tabaq fluently, 99 respondents (that is, 24.3%) were intermediate Tabaq speakers and 199 respondents (that is, 48.9%) have a little knowledge of Tabaq; the rest (that is, 152 respondents) have neither active nor passive knowledge of Tabaq. By contrast, the majority, 451 respondents (that is, 88.6%) speak Arabic fluently. The table also reveals that Tabaq speakers among the two younger age groups are less fluent in Tabaq, which contrasts with the high percentage of respondents (97%) among the older generation who claim fluency. The reason behind that may be the growing number of members of the younger generations who were born outside the Tabaq area or who moved away from their homelands to the larger towns in the northern part of Sudan in search of work and education. This would then confirm what Li Wei proposed: if a

person moves away from the neighbourhood or area in which the minority language is spoken or loses contact with those who speak it, he or she may lose fluency in the minority language.[39] Note that the responses correlate with active and passive knowledge: the overwhelming majority of respondents who claim a passive knowledge in Tabaq also reported intermediate and little fluency in Tabaq.

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To sum up, members of the older generation who speak any Tabaq speak the language fluently, the middle generation has varying fluencies in Tabaq, and the younger generation speaks Tabaq with little fluency only, while they speak Arabic fluently. According to Grenoble and Whaley,[40] who try to assess the vitality of languages, all languages that are ranked at any level below safe tend to have communities which include semi speakers, i.e., not fully fluent speakers, who lack native proficiency; the ratio of semi speakers to fluent speakers varies among communities and with the level of endangerment. Given that table 15 shows the presence of large proportions of semi speakers of Tabaq, we may take this as another indication that Tabaq is an endangered language.

Tabaq										
Fluency	61+	%	41–60	%	26–40	%	15–25	%	total	%
Fluent	32	97.0	31	44.9	31	19.1	15	10.5	109	26.8
Intermediate	1	3.0	18	26.1	44	27.2	36	25.2	99	24.3
Little	0	0.0	20	29.0	87	53.7	92	64.3	199	48.9
total	33	100.0	69	100.0	162	100.0	143	100.0	407	100.0
Arabic										
Fluency	61+	%	41–60	%	26–40	%	15–25	%	total	%
Fluent	31	70.5	91	80.5	171	91.4	158	96.3	451	88.8
Intermediate	8	18.2	17	15.0	14	7.5	5	3.0	44	8.7
Little	5	11.4	5	4.4	2	1.1	1	0.6	13	2.6
total	44	100.0	113	100.0	187	100.0	164	100.0	508	100.0

Table 15. Levels of fluency in Tabaq and Arabic

3.5 Distribution of Tabaq speakers and Arabic monolinguals according to four variables

According to Mesthrie et al.,[41] language shift refers to the replacement of an indigenous language by another language, which becomes the primary medium of communication and socialization. Language shift can be measured against a number of sociolinguistic parameters, such as status, demography and institutional support,[42]

39 Wei, "Dimensions of Bilingualism," p. 5. See also Wei, "Bilingualism," p. 38.
40 Grenoble & Whaley, *Saving Languages*, p. 241.
41 Mesthrie et al. *Introducing Sociolinguistics*, p. 253.
42 Hulsen, *Language Loss and Language Processing*, p. 29.

and people choose to maintain or shift to other languages as their social relationships change.[43] Language shift or maintenance may also result from economic changes; recall that table 7 indicated that more than 60% of those who migrated from Tabaq did so in search for economic opportunities. People strive to improve their language proficiency, particularly their proficiency in a dominant majority language, in order to get a better job or earn more money.[44] This section investigates the relative importance of different sociolinguistic variables, and table 16 below shows the distribution of spoken Tabaq against sex, age, marriage pattern, and employment.

Table 16.
Distribution of
Tabaq speakers
and Arabic
monolinguals by
four variables

variable	Tabaq	%	Arabic	%	total	%
female	91	37.8	150	62.2	241	100.0
male	103	36.0	183	64.0	286	100.0
15–25	35	20.7	134	79.3	169	100.0
26–40	57	29.5	136	70.5	193	100.0
41–60	69	57.0	52	43.0	121	100.0
61+	33	75.0	11	25.0	44	100.0
intermarriage	3	18.8	13	81.3	16	100.0
white collar	47	37.0	80	63.0	127	100.0
blue collar	49	41.9	68	58.1	117	100.0
housewife	59	47.2	66	52.8	125	100.0
student	14	12.5	98	87.5	112	100.0

Table 16 illustrates that language shift to becoming a monolingual speaker of Arabic applies equally to both sexes (female 62.2%, male 64%). Age, by contrast, is a crucial differentiating factor: the lowest rates of language shift were found among those aged over 60 years (25%), then in the 41–60 age group (43%), then in the 26–40 age group (70.5%) and then among the youngest generation, 79.3%. The Tabaq community is characterized by endogamous marriages, i.e. less than 5% of married Tabaq respondents lived in exogamous marriages, as indicated in table 8. Table 16 shows that 81.3% of respondents who grew up with one non-Tabaq parent speak monolingual Arabic, but the absolute numbers are too low to give any further generalizations.

Table 16 also shows that many holders of both white and blue collar jobs are monolingual Arabic speakers. It is possible that this reflects the predominance of economic migration among the Tabaq community. The majority of Tabaq respondents migrated in search of better job opportunities and an improved lifestyle, and they live side by side with other ethnic groups in a multi-ethnic and multi-cultural society in their new residences, mainly in urban areas such

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43 Milroy & Milroy, "Linguistic Change, Social Network and Speaker Innovation," p. 343.
44 Gibbons & Ramirez, *Maintaining a Minority Language*, p. 62.

as Khartoum, Rabak and Gadarif. Arabic is the sole medium of daily communication between all members of these multi-ethnic communities. And work in these areas requires knowledge of Arabic, regardless of the type of the job, whether it is a white or a blue-collar job.

The majority of females are housewives. And while housewives tend to retain their knowledge of Tabaq to a larger degree than people with other occupations (47.2% of housewives knew some Tabaq), it is still noticeable that the majority of them have become monolingual speakers of Arabic, too. This shows the pervasiveness of Arabic and the fact that Arabic has intruded well into the home domain, and is not solely tied to paid work outside the house.

Students recorded the greatest shift towards Arabic, that is 87.5%. This is not surprising, since education is available only in the majority language, and once a child starts school, the second language will begin to play a major role.

4. Conclusion

This study has shown that language shift from Tabaq to Arabic is pervasive. All respondents speak Arabic. The majority (57.9%) acquired Arabic at school, but there is already a relatively large proportion (36.2%) that has acquired it at home. The spread of Arabic is facilitated by the fact that it is the official language and the lingua franca in the Sudan; it is also used as a medium of instruction at all levels of education. Age is the most important factor in the acquisition of Arabic and Tabaq. Over 90% of the two younger generations are fluent in Arabic: see table 15. Only 38.3% of the respondents claim to speak Tabaq, and only 26.8% claim to be fluent speakers of Tabaq. Most of the Tabaq speakers are from the older generation, and only few young Tabaq speak Tabaq. More than 60% of the respondents speak Arabic monolingually. And 34% of the respondents are bilingual in Tabaq/Arabic and Arabic/Tabaq. It should be noted, however, that this survey was conducted among the Tabaq migrants in northern Sudan, who mainly migrated for socio-economic and educational purposes. It is not known how the sociolinguistic situation in the migrant communities compares to the sociolinguistic situation in the Tabaq homeland. In the migrant communities, however, it has to be said that the Tabaq language is severely endangered, and is fast losing ground to Arabic.

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Number Marking on Karko Nouns

Angelika Jakobi and Ahmed Hamdan*

1. Introduction

Karko is a little described language[1] spoken in the west of the northern Nuba Mountains of Sudan. Karko speakers refer to their language by the terms kàâŋ or káákmbὲὲ. The latter term is a genitive noun phrase literally meaning "Karko's language." According to the co-author of this paper, who is a mother-tongue speaker of Karko, the Karko population amounts to about 15,000 individuals, most of whom are living in urban centers outside of the rural Karko area, e.g. in the southern Kordofan towns Dilling and Kadugli, in the northern Kordofan city of El-Obeid, and even in Khartoum, and Port Sudan. The co-author of this paper claims that the scattered Karko communities stick to their language and culture, in spite of their fragmentation.

Karko is part of Kordofan Nubian, a group of closely related languages which are also known as Hill Nubian (in German as *Bergnubisch*). They represent a branch of the Nubian language family which, according to Claude Rilly,[2] is genetically related to Nara in Eritrea, Ama (Nyima) in the Nuba Mountains, Tama of Darfur, and even the extinct Meroitic language. These languages form the northern subgroup of Eastern Sudanic which, in turn, is a primary branch of Nilo-Saharan.

With respect to number marking, there are considerable differences between the Nile Nubian languages and the Kordofan Nubian languages. In the Nile Nubian languages – i.e. Old Nubian, Nobiin, Dongolawi, and Kunuz (also known as Kenzi or Kenuzi) – only plural

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suffixes are employed. According to Werner, Nobiin has four suffixes, two having a low tone , -*ìi*, -*ncìi*, and two having a high tone, -*ríi* and -*gúu* (allomorph -*kúu*). The noun root preceding the plural suffix always takes low tone(s), no matter which tone(s) the noun root has in the singular form.[3]

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1	*dìrbád / dìrbàd-ìi*	"chicken / chickens"
2	*úmbúu / ùmbùu-ncìi*	"trunk of date-palm / trunks of date-palm"
3	*áadèm / àadèm-ríi*	"person / people"
4	*gòr / gòr-kúu*	"heifer / heifers"

In the Kordofan Nubian languages, by contrast, number marking on nouns is much more complex. In fact, it has features characteristic of the system attested in many other Nilo-Saharan languages. According to Dimmendaal, this system "involves a tripartite division between singulative, plural, and replacive marking on nouns."[4] The characteristics of this system are briefly illustrated in exx. 5–10 from Tagle, a Kordofan Nubian language spoken in the east of the northern Nuba Mountains.[5]

Singulative marking is defined as the marking of an inherently plural noun stem.[6] The marked singulative form contrasts with the unmarked plural form. This number marking pattern is attested on nouns that designate items that naturally occur in collectives, such as hair and beans, as seen in exx. 5 and 6. The singulative form designates a single item out of that natural group or collective of items. This suggests that singulative marking has a semantic base.

| 5 | ʈ̀ɪl-tû / ʈ̀ɪl | "(a single) hair / hair" |
| 6 | ùkù–dû / úkù | "bean / beans" |

Plural marking involves a variety of suffixes which are attached to an inherently singular noun stem, as already illustrated by the Nobiin exx. 1–4. In the Kordofan Nubian languages, however, the suffixation of specific plural markers may trigger the alternation of the root vowel. This is shown in the Tagle ex. 8, where the plural suffix –ì triggers the root vowel /ɛ/ to be realized as [ɪ] in the plural form.

| 7 | ʈɔ́ŋ / ʈɔ́ŋ–î̀ | "calebash bowl / calebash bowls" |
| 8 | têr / tìr–ì̀ | "girl / girls" |

3 Werner, *Grammatik des Nobiin*, p. 80.
4 Dimmendaal, "Number Marking and Noun Categorization in Nilo-Saharan Languages," p. 214.
5 The Tagle language is also considered in Ibrahim & Jakobi, "Attributive Modifiers in Taglennaa."
6 Dimmendaal, "Number Marking and Noun Categorization in Nilo-Saharan Languages," p. 220.

The replacement pattern, in turn, involves a set of paired singular and plural suffixes that replace each other, as attested by the suffixes –à / –íl and –ʊ̄ / –í in exx. 9 and 10.

ʈʊ̀jj–à / ʈújj–íl	"trough / troughs"	9	
kít–ʊ̄ / kít–í	"door / doors"	10	273

The examples also illustrate that tonal alternations are involved in number marking on nouns. Tone as a concomitant and even sole number marking device is addressed in our comments on several tables discussed in section 4 and 5 below. However, we will not offer a full discussion of tone and its function in number marking.

Apart from these formal aspects, the marking or non-marking of nouns for number may be semantically motivated. Whereas nouns designating natural collectives or pairs of items are often unmarked for number, nouns designating individuated items being part of these collectives are marked by singulatives, as illustrated in exx. 5 and 6. Moreover, body part and kinship terms as well as diminutives often select specific number markers. This fact provides another piece of evidence of the relevance of semantics in number marking.

A further semantic property of the typical Nilo-Saharan number marking system is related to the grammatical behavior of nouns denoting substances and collectives.[7] In Karko, as we will show in section 6, nouns denoting substances grammatically behave like count nouns. Unlike English which often does not allow the plural marking of nouns denoting a substance (*beers, *bloods), in Karko it is quite possible to attach a plural suffix to such nouns. The unmarked counterpart, however, is either inherently singular or plural. This can be seen from their modifiers (e.g. demonstratives, adjectives) which occur in the singular or plural form, respectively.

The aim of our paper is to provide evidence of this rich system in Karko, but we also intend to show how this system is complicated by morphophonemic alternations of the nominal roots, including quality and quantity changes of the root vowel and the deletion of root-final consonants. These alternations often result in changes of the syllable structure.

2. Phonology, syllable structure, and morphophonemic alternations

Before embarking on the main topic of our paper, we will provide a brief outline of the Karko vowel system, the syllable structure, and the alternations of the noun roots. These issues are relevant to un-

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7 Ibid., pp. 292f.

derstand the alternations encountered in the number marking system.

As seen in table 1, Karko has a vowel system characterized by the distinction of eight vowel qualities. Except for the mid-central vowel /ə/, which is attested as short vowel only, all other vowels appear both short and long. That is, there is a phonological opposition between short and long vowels.

When /ə/ and /ɔ/ are lengthened they are both realized as [ɔː]. That is, there is a phonological opposition between the short vowels /ə/ and /ɔ/ but the opposition between /əː/ and /ɔː/ is neutralized in favor of /ɔː/.

Table 1. The vowel system

i, iː				u, uː
	e, eː		o, oː	
		ə		
	ɛ, ɛː		ɔ, ɔː	
		a, aː		

Note: In order to provide space for the tonal accents, long vowels are written as double vowels in the examples below, for example, jīīl instead of jīːl, and tɛ́ɛ̀ instead of tɛ̂ː.

Unlike other Kordofan Nubian languages, Karko has a special type of vowel harmony system which is characterized by progressive vowel assimilation.[8] Except for the diminutive plural suffix –néè (see section 5), syllabic suffixes employed in number marking have an unspecified vowel. This target (suffix) vowel assimilates all phonological features of the trigger (root) vowel, i.e. the suffix "copies" the phonological features of the root vowel. This can be briefly illustrated by the plural suffix –Vnd, which is realized as [end], [and], or [ond], respectively, depending on the preceding root vowel, e.g. ēb–ēnd "tail-PL," ām–ānd "ram-PL," and ōr–ōnd "head-PL."[9] Although these examples appear to suggest that tone is "copied" to the suffix vowel, this is not the case. In fact, tone is not conceived to be a property of a vowel but rather a property of a syllable. Evidence for this is provided by lost syllables whose tones often attach to the previous syllable (for more details, see below).

Karko also differs from other Kordofan Nubian languages in admitting complex syllables, including syllables ending in two consonants. Table 2 provides an overview of the possible syllable types attested in monosyllabic words. They can be grouped into syllables

8   The scope of the vowel copying system and its limits have not yet been investigated. We can, however, safely say that, except for the diminutive plural marker –néè, all syllabic number marking suffixes attest vowel copying.

9   Abbreviations used: * - unattested; 1, 2, 3 – 1st, 2nd, 3rd person; Ar. – Arabic; C – consonant; IMP – imperative; OBJ – object; PL – plural; SG – singular; SBJ – subject; sp. – species; V – vowel; VN – verbal noun.

with a short vowel (V, VC, CV, CVC, VCC, CVCC) and corresponding syllables with a long vowel (Vː, VːC, CVː, CVːC, VːCC, and CVːCC). The syllable structures V and CV are rare; they occur in function words rather than in content words.

Syllable types with short vowel	V	è "I (1SG SBJ)," à "you (2SG OBJ)"
	VC	èt "baobab-tree," ār "container," ōg "blood"
	CV	gɔ̄ "this," té "he, she, it (3SG SBJ)"
	CVC	têr "bull," dāt "clay," bùt "cat"
	VCC	ɔ̄nd "husband's sibling," ənd "donkey," ɛnd "Pennisetum millet," əlɖ "breast"
	CVCC	tŏnd "child," jílɖ "tooth," dəlɖ "granary"
Syllable types with long vowel	Vː	ōō "hot," ōō "head," úú "hawk"
	VːC	îil "body," ēēb "tail," áàm "ram"
	CVː	tíí "beer," bùù "antelope," ʃɔ̄ɔ̄ "year"
	CVːC	ʃīīl "chief," ʈēēj "oil," bɔ̀ɔ̀l "dog"
	CVːCC	báàlɖ "locust," kàâŋ "Karko language"

Table 2. Syllable types of monosyllabic words   275

Some word-initial consonants are attested with labialization, e.g. [tw, ʈw, ʃw, kw, dw, ɖw, jw, gw, ŋw], but they do not have phoneme status because they are always followed by one of the front vowels, /i, e, ɛ/, or the low central vowel /a/, as illustrated in table 3. This distributional restriction is also true for word-initial [w]. For this reason labialization is not considered to be a feature of those consonants but rather a characteristic of the vowels realized as [wi, wiː, we, weː, wɛ, wɛː, wa, waː]. Note that the front vowels /i, e, ɛ/ and the central low vowel /a/ are also attested without labialisation when following an initial consonant.

Table 3. (C)w + front vowel

w	wéènd "soil," wād "in-law (wife's father, daughter's husband)"
tw	twàn "chin"
ʈw	ʈwɛ́ɛ̀ "calebash bowl.PL," ʈwăr "frog.PL"
ʃw	ʃwììd "sand," ʃwáàd "whip"
kw	kwééʈég "setting bones.VN," kwɛ̀ɛ̀d "tree sp. (Ar. *nabaq*)," kwàâ "spear"
dw	dwééd "cloud," dwád "running.VN"
ɖw	ɖwàà "wrestling.VN"
jw	jwáá "duckweed"
gw	gwág "ant-eater"
nw	nwàár "run.IMP.2SG"
ɲw	ɲwààɲ "long and pointed (e.g. nose)"
ŋw	ŋwáɲ "snore.VN," ŋwáɲ "cooked first milk of cow or goat," ŋwéénd "rubbish"

Morphophonemic alternations of roots play an important role in Karko grammar. In the nominal number marking system we encounter:

1. lengthening of the root vowel in the unmarked singular or plural forms of nouns, e.g. jíl–ɖ / jiil "toot/teeth," ēēb / ēb–ēnd "tail/tails";

2. quality alternations of the root vowel which commonly coincide with quantity alternations, e.g. ʃɔ̀ɔ̀ / ʃə̂r "giraffe," tɛ́ɛ̀ / tèr "girl";

3. loss of root-final /r/, e.g. ōō / ōr–ōnd "head" and tíí / tîr "beer," see table 21.

The lengthening of the root vowel (either in the singular or plural form) is only attested by nouns having a morphologically unmarked (C)VC-shaped root. Thus in this environment the phonological opposition between short and long vowels is neutralized; in other words, the lengthening of the root-vowel of a noun is predictable.[10]

Nouns that do not fulfill these conditions do not exhibit a quantity alternation of their root vowel. This is true for nouns that have – both in the singular and the plural form – a (C)VC-root with a short vowel. These nouns are assumed to have lost a syllabic suffix, e.g. ʈîj / ʈĭj "maternal uncle" and ēt / ĕt "sibling." This assumption is supported by the presence of falling and rising tones on these monosyllabic nouns. Falling and rising tones often reflect the loss of a syllabic suffix. The tone of that suffix is preserved by attaching to the preceding tone of the root.[11]

Moreover nouns having a long root vowel both in the singular and plural form retain this long vowel, as is attested in māā / māā–nd "hum of camel," kɛ́ɛ́–d / kɛ́ɛ́–n "tree sp. (Ar. *giđđeem*)." Also quantity alternations of the root vowel neither occur on nouns with a (C)VCC-shaped root, e.g. ə̀nɖ / ə̄nɖ–ə̄ɲ "donkey," ɖə̀lɖ / ɖə̄lɖ–ə̄ɲ "granary," nor on bisyllabic nouns, e.g. bə́gə̀l / bə̄gə̄l–ɖ "lion," and kàmàl / kāml–ə̄ɲ "camel."

As for the quality alternation of the root vowel – which commonly coincides with a quantity alternation – we assume that it is triggered by a lost syllabic suffix represented by or including a high front vowel.[12] Due to this vowel, the root vowel is raised, that is, ɛ → e and ɔ → ə, as attested by tɛ́ɛ̀ / tèr "girl," bɔ̀ɔ̀l / bə̂l "dog," ə̀l–ɖ / ɔ̄ɔ̄l "breast."

After having provided some phonological and morphophonemic background information, we will now turn to the main topic.

10 According to Hellwig & Schneider-Blum, "Tabaq," this neutralization is also attested in Tabaq, a language closely related to Karko.

11 The assumption that the rising tone in the plural form of Karko ēt / ĕt "sibling" originates in a lost syllabic suffix whose tone has attached to the previous tone is corroborated by the cognates īt–á / ìt–ā attested in the closely related Kwashi language.

12 In the closely related Kwashi language the assumed high front vowel is realized as [i]. It is attested both as the plural suffix –i, e.g. bɔ̀ɔ̀l / ból–ī "dog" and as part of the singulative suffix –dī, e.g. ōl–dī / ɔ́ɔ́l "breast." It may be noticed that in this language, too, the suffix vowel [i] triggers the raising of the root vowel /ɔ/ which is therefore realized as [o].

We will first address singulative marking, then, in section 4, plural marking, and in section 5 the replacement pattern. Section 6 is devoted to the grammatical behavior of nouns denoting substances and natural collectives. In section 7 we will summarize our findings and raise some questions to be answered in future studies.

3. Singulative marking

In Karko there are two singulative suffixes, –(V)t and –ɖ, as illustrated in tables 4 and 5, respectively. The corresponding plural forms are morphologically unmarked.

Table 4 shows that the singulative suffix –(V)t has two allomorphs: –t is selected when following a vowel-final root, –Vt after a consonant-final root. Contrary to our expectation, the singulative form of "hair" is not tēl–ét but rather ʈēɽ–ét. So the root-final /l/ is realized as retroflex [ɽ]. This may be due to the adoption of the retroflex articulation of the word-initial /ʈ/. The noun ʈēɽ–ét / tèèl is also irregular in respect to the uncommon alternation of the word-initial consonant: in the singular form there is an alveolar-retroflex /ʈ/ but in the plural form there is a dental /t/.

singular	plural	gloss
wêê–t	wèè	sorghum cereal
ʈēɽ–ét	tèèl	hair
ɛnɖ–ɛ́t	ɛnɖ	Pennisetum millet

Table 4. The singulative -(V)t, plural unmarked

Word-final stops are commonly unaspirated. However, the consonant of the suffix –(V)t is always realized as an aspirated voiceless dental stop [tʰ]. This aspiration reflects a lost vowel which is still retained in the other Kordofan Nubian languages, for instance, in Tagle ʈɪl–tũ̂ "(a single) hair."

As illustrated by tèèl in table 4 and by jīil and ɔɔ̄l in table 5, the root vowels are lengthened when the root has a (C)VC-structure; in other words, tel ~ ʈel, jil and əl are considered to represent the roots, respectively.

singular	plural	gloss
jíl–ɖ	jīil	tooth
ə̄l–ɖ	ɔɔ̄l	breast

Table 5. The singulative -ɖ, plural unmarked

The pattern attested in table 5 is reversed in the nouns presented in table 7 where the nouns have an unmarked singular form and a plural form marked by –ɖ.

4. Plural marking

Plural marking in Karko involves a variety of suffixes which are attached to an inherently singular noun stem. They are –(V)nd, –ɖ, –(V)l, –Vr, –Vɲ, –Vŋ.

The suffix –(V)nd has two allomorphs: –Vnd occurs on roots ending in a consonant and –nd on roots ending in a vowel. In the case of ōō / ōr–ōnd "head" we assume that ōr is the root, as attested in the plural form, and that the root-final /r/ has been deleted in the singular form. This is a common process in the language, as illustrated in table 21.

Depending on the syllable structure of the noun root, the singular form may undergo a lengthening of the root vowel or not. In case of ōg and úk, for instance, we assume that a singular suffix has been lost from this root. For this reason the root vowel is not lengthened. In case of ōō and ēēb, however, we assume that the root is monosyllabic having the syllable structure VC, as attested in the plural forms, ōr–ōnd and ēb–ēnd. Monosyllabic roots of this shape predictably undergo vowel lengthening.

Table 6 shows that the suffix –(V)nd is conspicuously frequent on body part terms, however not exclusively, as –(V)nd is also attested on other nouns.

Table 6. The plural suffix –(V)nd

singular	plural	gloss
ōg	ōg–ōnd	blood
úk	ūk–ūnd	fire
ōō	ōr–ōnd	head
ēēb	ēb–ēnd	tail
îɲ	īɲ–īnd	scorpion
áàm	ām–ānd	ram
ʃēē	ʃēē–nd	udder
ʃēēl	ʃēl–ēnd	penis
māā	māā–nd	hum of camel
būūg	būg–ūnd	back, upper part of -
kālîî	kálíí–nd	door
kàlîî	kálíí–nd	female friend of a female

As illustrated in Table 7, the plural suffix –ɖ occurs on nouns ending in the lateral /l/. Many of these nouns have a (C)VC-root and therefore lengthen the root vowel in the unmarked singular form. These nouns also share a high-low tone pattern in the singular form and a (mid-)mid pattern in the plural.

The pattern attested in table 7 is the reversed pattern of the nouns presented in table 4 where –ḍ is used as singulative marker, the plural being unmarked.

singular	plural	gloss
îl	īl–ḍ	body
áàl	āl–ḍ	heart
ʃáàl	ʃāl–ḍ	compound
ʈíŋìl	ʈīŋīl–ḍ	baboon
kə́məl	kəməl–ḍ	axe
bə́gə̀l	bə̄gə̄l–ḍ	lion

Table 7. The plural suffix –ḍ   279

The plural suffix –(V)l is attested on vowel-final and consonant-final nouns, see table 8. After vowel-final nouns the allomorph –l is selected, after consonant-final nouns the allomorph –Vl. The suffix often (though not always) coincides with a mid-mid tone pattern. The predictable lengthening of the root-vowel is attested in the unmarked nouns hɔ́ɔ̀j, ʈēēj, éèj whose basic root structure is (C)VC, as attested in the plural forms.

The last item in this table attests to re-syllabification. The singular form əbə̄t has a bisyllabic structure, V.CVC which changes to əbt having the structure VC.C when the plural suffix –Vl is attached. So the second vowel of əbə̄t is deleted when –Vl is attached. This pattern of resyllabification is also attested in several other bisyllabic nouns, see table 10.

singular	plural	gloss
āt	āt–âl	water-pot
ōnḍ	ōnḍ–ôl	star
éèj	ēj–ēl	milk
ʈēēj	ʈēj–ēl	oil
hɔ́ɔ̀j	həj–əl	forked pole
ərtîi	ərtī–l	sheep
əbə̄t	əbt–əl	wing

Table 8. The plural suffix –(V)l

The suffix –Vr shown in table 9 is attested with a low tone or a falling tone. The preceding root has various tones but a high tone is not attested.

The suffix is frequently – though not exclusively – found on nouns designating animals.

singular	plural	gloss
kòk	kōk–ôr	chicken
bùt	bùt–ùr	cat

Table 9. The plural suffix –Vr

singular	plural	gloss
bɛ̀g	bɛ̀g–ə̀r	he-goat
kə̄ŋ	kə̄ŋ–ə̂r	snake
kə̆ŋ̀[13]	kə̆ŋ–ə̂r	hornbill
mûnd	mǔnd–ûr	rifle
kùd	kùd–ùr	pig

The suffix –Vɲ is attested on monosyllabic and bisyllabic nouns; see table 10. When it attaches to bisyllabic nouns of the type CV.CVC and when the word-final consonant is /l/, the vowel preceding /l/ is deleted. For this reason the syllable structure of the stem changes from CV.CVC to CVC.CVC when –Vɲ is attached, e.g. ʃə̄.kə́l / ʃə́k.lə́ɲ and kwà.dàl / kwād.lāɲ.

Table 10. The plural suffix –(V)ɲ

singular	plural	gloss
ìr	īr–īɲ	river
ə̀r	ə̄r–ə̄ɲ	rope
tɛ̂r	tɛ̄r–ɛ̄ɲ	bull
ə̀nd	ə̄nd–ə̄ɲ	donkey
ɖə̀lɖ	ɖə̄lɖ–ə̄ɲ	granary
ɖâlɖ	ɖālɖ–āɲ	drum
kàmàl	kāml–āɲ	camel
ʃə̄kə́l	ʃə́kl–ə́ɲ	gazelle
būdúl	búdl–úɲ	hare
kwàdàl	kwādl–āɲ	cock

The suffix –Vɲ is particularly frequent. It also appears on nouns borrowed from Arabic; see table 11, suggesting that this plural suffix is highly productive. Another suffix attested on borrowings is –Vŋ, see table 14.

Table 11. The plural suffix –(V)ɲ on borrowings

singular	plural	gloss
bāráád	bāráád–áɲ	tea pot
tēyáàr	tēyáár–áɲ	aeroplane
ārbíɛ̀	ārbíɛ́–ɛ́ɲ	car
kāráàʃ	kārááʃ–áɲ	copybook

The suffix –Vɲ is also attested on kinship terms where it is always realized with a falling tone, as shown in table 12. However, not all kinship terms take this suffix. Some singular and plural forms of kinship terms are solely distinguished by tonal contrast, as seen in table 20.

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13 As the singular form of kə̆ŋ̀ "hornbill" has a low-high-low tone pattern, we decided to distribute the tonal accents over the vowel and the following velar nasal.

The suffix –Vɲ assigns a distinct tone pattern to the plural form of a noun, i.e. a mid tone is assigned to the root while the suffix –Vɲ has a falling tone. The suffix –Vɲ has an allomorph –Vŋ which is selected when the preceding consonant is a palatal nasal, as attested in āɲ–âŋ. Probably, the selection of the allomorph –Vŋ is motivated by dissimilation, that is, to avoid the sequence of two palatal nasals in one word. Alternatively, the suffix –âŋ may be conceived of as a realization of –Vŋ in table 13.

singular	plural	gloss
ɔ̌l	ɔ̌l–ɔ̂ɲ	wife's mother and her female relatives
át	át–âɲ	grandchild
ām	ām–âɲ	grandmother
āɲ	āɲ–âŋ	father's sister
ên	ēn–ɛ̂ɲ	mother
fâg	fāg–âɲ	father
kēr	kēr–ēɲ	brother-in-law
kēd	kēd–êɲ[14]	sister's son
wād	wād–âɲ	wife's father
ɔ̌nd	ɔ̌nd–ɔ̂ɲ	husband's sibling

Table 12. The plural suffix -Vɲ on kinship terms

Table 13 shows nouns taking the plural suffix –Vŋ. Except for ār–âŋ, the marked plural forms are attested with low tones.

singular	plural	gloss
ār	ār–âŋ	container made from cow dung
fùt	fùt–ùŋ	parcel, something wrapped up
kə̀r	kə̀r–ə̀ŋ	shield
ʈùlɖ	ʈùlɖ–ùŋ	ostrich
kə̀lɖ	kə̀lɖ–ə̀ŋ	vulture
bə̀lɖ	bə̀lɖ–ə̀ŋ	stranger

Table 13. The plural suffix -Vŋ

Apart from –Vɲ, the plural suffix –(V)ŋ is attested on nouns borrowed from Arabic.

singular	plural	gloss
kǐt	kīt–îŋ	book
ʃēēnéè	ʃēēnéè–ŋ	tray

Table 14. The plural suffix -Vɲ on borrowed nouns

14 The noun kēd / kēd–êɲ is also attested with the replacement pattern, kē–d / kě–n, with the suffixes –d and –n replacing each other.

5. The replacement pattern

The replacement pattern in Karko is not restricted to singular and plural suffixes replacing each other. It is also realized by tonal contrast, for which see table 20, and by root vowel alternations, for which see tables 21 and 22.

The suffix –(V)t has already been introduced in table 4 where it is employed as a singulative marker on a few nouns whose plural forms are unmarked for number. In tables 15–17, –(V)t is found to be additionally used as a singular (rather than singulative) marker in a replacement pattern.

Table 15 provides examples of the replacement pattern in which the suffix –(V)t is used to mark the singular while the plural is marked by –(V)n. This pattern coincides with the alternation of the root vowel quality in nə̄–t / nɔ̂–n "horn."

Table 15. Singular –(V)t and plural –(V)n replacing each other

singular	plural	gloss
è–t	è–n	baobab-tree
nə̄–t	nɔ̂–n	horn
ɖə̀–t	ɖə̀–n	water-melon
kè–t	kè–n	garment, cloth
ʃē–t	ʃē–n	cucumber
kà–t	kà–n	field
mɛ̀ɛ̀–t	mɛ̀ɛ̀–n	tree sp.
əm–ət	əm–ən	moon, month

In Table 16, –(V)t is replaced by the suffix –(V)l.

Table 16. Singular –(V)t and plural –(V)l replacing each other

singular	plural	gloss
ʃè–t	ʃè–l	rib
jɛ̀–t	jɛ̀–l	cowry shell
ká–t	kâ–l	eye
gà–t	gà–l	kind of tree
mēē–t	mēē–l	adult circumcised man
wìì–t	wìì–l	charcoal
kwèè–t	kwèè–l	egg
kə̀m–ət	kə̀m–əl	guinea-fowl

Table 17 illustrates a few nouns attesting the suffixes –(V)t and –(V)r in the replacement pattern.

Table 17. Singular –(V)t and plural –(V)r replacing each other

singular	plural	gloss
kò–t	kō–r	man
kó–t	kò–r	heifer, young cow

singular	plural	gloss
gì–t	gì–r	tree sp. (Ar. *ħimmeeđ*)
kwâ–t	kwâ–r	shoe
kwà–t	kwà–r	pebble

The –(V)d and –(V)n suffixes are frequently attested, as seen in table 18. Due to the fact that the replacement pattern is realized by pairs of singular and plural suffixes, the nouns do not provide evidence of predictable vowel root lengthening since this occurs only on morphologically unmarked nouns.

singular	plural	gloss
îi–d	î–n	person
bê–d	bê–n	co-wife, wife's brother's wife
kē–d	kě–n	sister's son
ūr–ūd	ūr–ûn	Acacia sp. (Ar. *ħaraaza*)
əb–âd	əb–ân	tree sp. (Ar. *ushar*)
ēg–ēd	ēg–ēn	tree sp.
kɛ́ɛ́–d	kɛ́ɛ́–n	tree sp. (Ar. *giđđeem*)
kwɛ̀ɛ̀–d	kwɛ̀ɛ̀–n	tree sp. (Ar. *nabaq*)
kwèê–d	kwèê–n	bone

Table 18. Singular –(V)d and plural –(V)n replacing each other

In table 19 the number marking patterns of kùl–ɖ / kûl "mountain," jāl–ɖ / jâl "tongue" and bígìt / bīg "worm" look like a singulative marking with an unmarked plural form. However, if the plural were unmarked we would expect a noun root of the syllable structure CVC to have a long vowel, as explained in section 2. Since the vowels of kûl, jâl, and bīg are short, these forms rather suggest a lost plural suffix. This assumption is corroborated by the falling (i.e. high-low) tone – at least on kûl and jâl - that suggests that the low tone of the suffix has attached to the tone of the root.

Because of the lost plural suffix, the number markers on these nouns are assumed to reflect the replacement pattern –ɖ / Ø and –(V)t / Ø.

singular	plural	gloss
kùl–ɖ	kûl	mountain
jāl–ɖ	jâl	tongue
bíg–ìt	bīg	worm

Table 18. -ɖ / Ø and -(V)t / Ø replacing each other

There are a few nouns attesting the replacement pattern only by means of tonal contrast; see table 20. Since this specific number marking device is restricted to kinship terms it provides another

piece of evidence supporting the assumption that the selection of number markers has a semantic base.

Table 20. Tonal contrast distinguishing singular and plural forms of kinship terms

singular	plural	gloss
ēt	ĕt	sibling
tîj	tĭj	maternal uncle
êd	ĕd	in-law (husband's relative)
ágàt	ágăt	grandfather

Table 21 provides examples illustrating another variant of the replacement pattern. There is an alternation of noun roots with a long vowel in the singular and a short vowel in the plural. Nouns whose roots end in /r/ delete this consonant in the singular form, as seen in tíí / tîr, and several other examples. Additionally the quality of the root vowel may alternate, as seen in tɛ́ɛ̀ / tèr and ʃɔ̀ɔ̀ / ʃə̂r. The vowel alternations follow fixed patterns, ɛ → e and ɔ → ə, and are triggered by a lost –i suffix marking the plural forms.[15]

Table 21. Vowel quantity alternations

singular	plural	gloss
ūū	ûr	hawk
tɛ́ɛ̀	tèr	girl
tíí	tîr	beer
hìî	hîr[16]	owl
tūū	tûr	stump of tree
ʃɔ̀ɔ̀	ʃə̂r	giraffe
ɖɔ̀ɔ̀	ɖə̀r	skin
hɔ̄ɔ̄	hə̂r	tree
bùù	bùr	antelope
kōōl	kôl	well
kɔ̄ɔ̄l	kə̂l	house
ʃīīl	ʃîl	chief
bɔ̀ɔ̀l	bə̂l	dog
kɔ́ɔ̀l	kə̀l	stick
kààl	kàl	porridge (Ar. ʕaṣiida)
ʈwàá	ʈwăr	frog

Table 22. Vowel quality alternations

singular	plural	gloss
ʈwāā	ʈwɛ́ɛ̀	calabash bowl
kwàâ	kwɛ̀ɛ̂	spear

Finally, the replacement pattern is also attested by the diminutive

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15 See fn. 11.
16 As the tone pattern of hir PL is low-high-low, we decided to distribute the tonal accents both over the vowel and the final r.

suffixes –nd / –néè. In contrast to the other number marking suffixes that are immediately attached to the noun root, the diminutive suffixes are attached to the noun stem which may be extended by a number marking suffix. Thus diminutive forms are often doubly marked for number.

The diminutive suffixes may trigger morphological and tonal alternations of the root. The suffix –nd is apparently associated with a high tone which raises the tone of the stem, as can be seen in all singular forms presented in Table 23. Moreover, when –nd is attached to the stem, the singular suffix –t is deleted, and the root vowel, in turn, is extended in compensation for the deleted –t, as illustrated by kò–t–nd → kòó–nd. When –nd is attached to root-final /l/ this consonant is fused with the suffix –nd and realized as [lɖ], see bɔ̀ɔ̀l–nd → bɔ̀ɔ́lɖ. The diminutive plural suffix is always realized as [ê:], i.e. with a long vowel and a high-low tone pattern. It is not affected by vowel copying like other syllabic number marking suffixes.

The diminutive designates small sized objects or young beings and objects. The question of whether it may also be used to express endearment or even lack of respect, as attested in Tabaq and Midob,[17] requires further research.

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singular	plural	gloss
kò–t–nd → kòó–nd	kō–r–néè → kōr–néè	boy, lit. young/small man
téɛ̀–nd → téɛ́–nd	tèr–néè → tèr–néè	young/small girl
bɔ̀ɔ̀l–nd → bɔ̀ɔ́lɖ	bâl–néè → bál–néè	young/small dog
hɔ̄ɔ̄–nd → hɔ́ɔ́–nd	hɐ̂r–néè → hɐ̄r–néè	young/small tree

Table 23. The diminutive suffixes, singular –nd and plural –néè

6. Grammatical behavior of nouns denoting substances and collectives

In contrast to [–countable] mass nouns in English and other European languages, in many Nilo-Saharan languages such nouns grammatically behave like [+countable] nouns, as they can take plural suffixes.[18] Karko is not an exception, as attested by two examples, ōg / ōg–ōnd "blood" and ʈēēj / ʈēj–ēl "oil."

   ōg–ōnd   tìínâ   ííɾíɛ̀ɛ̀   11
   blood-PL 3PL.GEN be.different.3PL
   "Their blood [groups] are different"
   (lit. "Their bloods are different")

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17 See Bashir's and Ismail's papers in this volume.
18 Dimmendaal, "Number Marking and Noun Categorization in Nilo-Saharan Languages," p. 223.

12   ʈēj–ēl kāāj–ág   á   kwál–àr
oil-PL how.many-ACC 2SG have-PRS.2SG
"How many [kinds of] oil do you have?"
(lit. "How many oils do you have?")

286   The morphologically unmarked member of such nouns denoting liquids and substances is either inherently singular or plural. The inherent number of such a noun can be identified by means of a modifier which appears in its singular or plural form, respectively. For the purpose of illustration we have chosen the modifiers búù / bùú "strong, hard," ʃîr / ʃír "grey, dirty," and ōō / wāā "hot." It turns out that the Karko nouns "clay," "soil," "food," "sand," and "oil" are inherently singular because they select modifiers having a singular form.

Table 24. Inherently singular nouns

noun + SG modifier	gloss
də̄t búù	hard clay
wéènd ʃîr	grey soil
kām ōō	hot food
ʃwììd ōō	hot sand
ʈēēj ōō	hot oil

By contrast, the Karko nouns "water," "milk," "madiida (a local drink)," and "Pennisetum millet" are inherently plural since they take modifiers having a plural form.

Table 25. Inherently plural nouns

noun + PL modifier	gloss
ə́t ʃír	dirty water
ééj wāā	hot milk
kɔ̄r wāā	hot madiida drink
ɛ̀nɖ wāā	hot Pennisetum millet

As for Karko count nouns, not all have distinct singular and plural forms. Some examples of count nouns without a morphologically marked number distinction are listed in table 26.

Table 26. Count nouns without a morphologically marked number distinction

count nouns	gloss
īt	louse / lice
àl	leaf / leaves
ə̀ʃ	hand / hands
ʃɔ̄ɔ̄	year / years
tòm	bee / bees
tēē	cow / cows
ʈwàà	black ant / black ants

count nouns	gloss
ṭwār	termite / termites

With these count nouns the distinction of singular and plural number is expressed by means of modifiers like gɔ̄ "this" and gǒr "these," for example, gɔ̄ īt "this louse" and gǒr īt "these lice." Semantically, these nouns refer to items which commonly exist in natural collectives, as attested by tēē "cow / cows," terms for insects, paired body parts such as àʃ "hand / hands," and series such as ʃɔ̄ɔ̄ "year / years." Even the absence of number markers on these nouns confirms the relevance of semantics in the marking or – for that matter – non-marking of number.

7. Conclusions

Number marking on Karko nouns is extremely rich and complex. Apart from the tripartite system involving singulative suffixes, plural suffixes, and a replacement pattern, which is typical of many Nilo-Saharan languages,[19] number may be solely marked by one of the following devices: tonal contrast and morphophonemic alternations of the root vowel in respect to quantity and quality. Combinations of these devices are also attested.

For some of the number marking patterns it is easy to find many examples, but for other patterns only very few examples have been found. Apparently the most frequent suffix is the plural marker –Vɲ. The fact that it is also used on borrowed nouns suggests that it is a highly productive suffix that may be used for an open class of nouns. Another productive plural suffix is –Vŋ. Our sample of borrowings is probably too small to make a more definite statement on the possible use of other number markers.

The selection of specific number markers is often semantically motivated. This is particularly true for singulative markers which designate single items belonging to natural collectives or paired items, such as "teeth" and "breasts." Also kinship and body part terms tend to select specific number suffixes, although these suffixes may also be used on other nouns. Diminutives are another semantically defined group of nouns that select a specific pair of singular and plural suffixes. Moreover, nouns designating natural collectives are often found to be unmarked for number, as seen in tables 4, 5, and 26. The interplay between the semantic grouping of nouns and their formal marking may be conceived of as a linguistic device for noun classification.

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19 DIMMENDAAL, "Number Marking and Noun Categorization in Nilo-Saharan Languages,"
    p. 214.

The function of tone in number marking on nouns has not been investigated in detail. However, our data show that certain tone patterns re-occur and that singular and plural forms can even be solely marked by tonal contrast. So the relevance of tone in number marking is apparent, but it still requires a more refined study in the context of a general investigation on tone in Karko grammar.

Our paper is only a preliminary study of number marking on nouns. One of the questions not yet addressed is how numerals that are used as modifiers on noun phrases interact with number marking on the head noun. In a recent comparative study on noun phrases in the Nubian languages, Suzan Alamin has found "[w]hen the numeral refers to several entities the head noun is not marked for plural."[20] Is this true for Karko, too?

Another question is whether number marking on nouns interacts with verbal number marking, also known as pluractional marking. These questions provide some suggestions for future research.

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20 Alamin, "Noun Phrase Constructions in Nubian Languages," p. 213.

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Nubische Berichtigungsliste (1)

Grzegorz Ochała and Giovanni Ruffini

This article collects all comments on and proposed corrections to published texts from medieval Nubia. We intend this to be a continuous publication, with revisions made as appropriate. New versions will be indicated by date of publication. We invite email from anyone wishing to contribute to this list. Texts are organized by their number in the *Database of Medieval Nubian Texts* (available online at www.dbmnt.uw.edu.pl) and bibliographical citations follow the standards published in "A Guide to the Texts of Medieval Nubia" (available online at www.MedievalNubia.info).

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▸ DBMNT 4
Date: *I. Khartoum Greek* 5 – 27 October 1102; *CSCN*, table 11 on p. 71 – 26 October 1102.

▸ DBMNT 5
Date: *I. Khartoum Greek* 6 – 18 February 1159; *CSCN*, table 11 on p. 71 – 17 February 1159.

▸ DBMNT 13
Date: *I. Khartoum Greek* 19 – 5 September 1083; *CSCN*, table 11 on p. 71 – 5 September 1093 (note, however, that due to an editorial error, the two dates are misplaced in the table).

▸ DBMNT 15
Date: *I. Khartoum Greek* 21 – 10 December 883; *CSCN*, table 11 on p. 71 – 14 December 883.

▸ DBMNT 62
Provenance: wrongly labeled as from el-Kurru in *CSCN*, table 3 on p. 14, table 8a on p. 47, table 10b on p. 63, table 13a on p. 83 (see also map 1 on p. 21, map 2 on p. 51); in fact from el-Koro (*I. Khartoum Copt.* 119 and DBMNT).

▸ DBMNT 66
ll. 13–14: *I. Varsovie* 100 – μη|[νὶ Θῶϑ] γ'; *CSCN*, n. 61 on p. 241 – or μη|[νὸς Θῶϑ] γ'.

▸ DBMNT 67
Date: *I. Varsovie* 101 – 1 July – 28 August 707; *CSCN*, table 11 on p. 71 – 1 May or 1 July – 29 August 707.

▸ DBMNT 70
l. 16: *I. Varsovie* 106 – ἐπὶ δ(ὲ) Χ(ριστο)ῦ ψϙδ; *CSCN*, p. 192 – ἐπιδ(εμίας) Χ(ριστο)ῦ ψϙδ (the word ἐπιδ(εμίας) is mistakenly printed without brackets, however).

▸ DBMNT 73
Date: *I. Varsovie* 109 – 21 February 1173; *CSCN*, table 11 on p. 71 – 21 March 1173 (correctly already in Bagnall – Worp 1986, p. 352 [no. 7]).

▸ DBMNT 75
ll. 8–9: *I. Varsovie* 113 – τοῦ κόσμου ἔτη | ἑξακισχίλια διακόσια ϙ, ἀπὸ ἐπιδεμίας Χ(ριστο)ῦ ψϙ; *CSCN*, p. 196 – τοῦ κόσμου ἔτη | ἑξακισχίλια διακόσια ϙ<α> ἀπὸ ἐπιδεμίας Χ(ριστο)ῦ ψϙ<α>.

▸ DBMNT 78
ll. 5–6: *I. Lefebvre* 636 – τὴν [. . .]π|σιν σου εν[. . . . .] κόλποσι (thus also de Ricci 1909, p. 157); *SB* V 8728 – τὴν δ[ούλ]η[ν] | σιν σου ἐν [. . . . .] κόλποσι (thus also *I. Faras Copt.*, p. 205); *I. Tib.* 8 – τὴν δ[. . . .] π|σίν σου ἐν τ[. . . .] κόλποσι; van der Vliet 2007, p. 186 – ⲧⲏⲛ`ⲇ΄ [ⲡ] ⲁⲡ|ⲥⲓⲛⲉ ⲑⲩ`ⲅ΄ ⲉⲡⲓⲥ̣[ⲕ ⲉⲛ] ⲕⲟⲗⲡⲟⲥⲓ.

    ll. 18–20: *I. Lefebvre* 636 – την δ δουλ(ην) σ̄(ου) | ταμηρ επϊσ(κοπου) παχωρασ ϑυττ | πασοχων χπϑ παχωρασ (thus also de Ricci 1909, p. 159); *SB* V 8728 – τὴν δούλ(ην) σ(ου) | Ταμήρ, ἐπισκ(όπου). παχωρας ϑυττ | τασοχων χπϑ παχωρας (thus also *I. Faras Copt.*, p. 205); *I. Tib.* 8 – τὴν δ δοῦλ(ον) σ(ου) | Ταμὴρ ἐπῖσκ(οπον) Παχῶρας ϑυ ττ | Τασοχων χπϑ Παχῶρας; van der Vliet 2007, p. 186 – ⲧⲏⲛ`ⲇ΄ ⲇⲟⲩⲗⲥ̄|ⲧⲁ ⲙⲏⲣ ⲉⲡⲓⲥ`ⲕ΄ ⲡⲁⲭⲱⲣⲁⲥ ⲑⲩ`ⲅ΄ ⲧ̄ⲧ|ⲧⲁ ⳝ ⲉⲭⲱⲛ ⲭⲡ̄ⲑ̄ ⲡⲁⲭⲱⲣⲁⲥ.

▸ DBMNT 79
l. 23: *I. Faras Greek* 11 – ἀπὸ μαρ(τύρων) ω[.]ζ, "ère des Martyrs 847" (see also *I. Tib.* 7); correctly already in Griffith 1926, p. 85 – ἀπὸ μαρ(τύρων) ωϟζ, "from the martyrs 897" (see also Monneret de Villard 1935–57/I, p. 196; cf. Bagnall – Worp 1986, p. 352 [no. 8]).

    Date: *I. Faras Greek* 11 – inscription is dated to AD 1181 in the heading, but the translation prints AM 847, which is AD 1131 (a printing error?); correctly already in Griffith 1926, p. 85, where AM 897 is reckoned to AD 1181 (cf. Bagnall – Worp 1986, p. 352 [no. 8]).

▸ DBMNT 80
ll. 11–12: *I. Faras Greek* 12 – Φαρμο|ῦϑι ϛζ; *CSCN*, table 35h, on p. 232 – Φαρμο|ῦϑ κζ (full transcription in DBMNT).

▸ DBMNT 85
ll. 5–6 – *I. Faras Copt.*, p. 125 – ⲡⲣ̅ ⲡϥ. . . . |.ϥⲍⲟⲱⲏ, untranslated; van der Vliet 1999a, pp. 141–142 – ⲡⲣ̅ ⲙⲡϥ̄ⲧⲣⲟⲩ | ⲛⲍⲟⲱⲛ, "priest of (the church of) the Four Living Creatures."

▸ DBMNT 89
Provenance: incorrectly labelled as from Maharraqa in *SBKopt.* I 719.

    ll. 15–16: Sayce 1898, p. 111 – ⲛⲥⲟⲩ | † ⲕ̅ⲃ̅ † ⲙ̄ⲡⲉⲃⲟⲧ ⲉⲡⲓⲫⲁⲡⲟⲇⲓˋⲟˊⲕⲁ̄ⲧˋⲧˊⲓⲥ ⲉⲡⲓⲫⲟⲏ̄ (*sic*); Maspero [G.] 1903, p. 163 – ⲛ̄ⲥⲟⲩ | † ⲕ̅ⲃ̅ † ⲙ̄ⲡⲉⲃⲟⲧ ⲉⲡⲏⲫ ⲁⲡⲟ ⲇⲓˋⲟˊⲕⲗⲏˋⲧˊⲥ ⲉⲧⲏ ⲫⲟⲏ̄ (reprinted in *I. Faras Copt.*, p. 77, and *SBKopt.* I 719); *CSCN*, table 10a on p. 60, with n. 52 on p. 61 – ⲛ̄ⲥⲟⲩ † ⲕ̅ⲃ̅ † ⲙ̄ⲡⲉⲃⲟⲧ ⲉⲡⲏⲫ ⲁⲡⲟ ⲇⲓˋⲟˊⲕⲗⲏˋⲧˊⲥ ⲉⲡⲓ ⲫⲟⲏ̄ (cf. *CSCN*, table 10b on p. 62, and pp. 64–65, for the use of the preposition ἐπί in the dating formulae in Nubia).

▸ DBMNT 91
Date: Weissbrodt 1905/6, p. 6 (no. 4), *I. Lefebvre* 564, de Ricci 1909, pp. 154–161 (no. 4), and *I. Tib.* 9 – AD 1157; *CSCN*, table 11 on p. 71 – 27 December 1156.

▸ DBMNT 122
Date: *I. Mina* 25 – AD 867; *CSCN*, table 11 on p. 71 – 26 August 867.

▸ DBMNT 153
l. 6: *I. Mina* 61 – ⲛⲇⲓⲛⲟ̣ⲥ; *CSCN*, table 36b on p. 242 – ⲙ̣ⲓⲛⲟⲥ.

▸ DBMNT 170
ll. 1–2: *I. Mina* 80 – [·]ⲩⲉ̣ ⲇⲓⲟⲕⲗⲏⲧ[ⲓⲁⲛⲟⲥ] | ⲩⲟⲁ; *CSCN*, table 10a on p. 61, with n. 53, table 10b, p. 63 – ⲉⲧⲩⲥ ⲁⲡⲟ ⲇⲓⲟⲕⲗⲏⲧ[ⲓⲁⲛⲟⲥ] | ⲩⲟⲁ (cf. *CSCN*, table 10b, p. 63).

▸ DBMNT 174
l. 11: *I. Mina* 88 – [---]ⲱϥ ⲅ; van der Vliet 2011a, pp. 214–215 [ϥⲁ]ⲱϥ ⲅ.
 Date: *I. Mina* 88 – AD 859; *CSCN*, table 11 on p. 71 – 30 September 858.

▸ DBMNT 178
b, ll. 9–10: *I. Mina* 92 – ⲥⲟⲩ ⲭⲟⲩⲧ . . . . . . |ⲉ̣ ⲟⲧ ⲛⲛⲱ̣ ⲫⲓ ̣, "le vingtième(?) jour de …"; Till 1948, p. 358 – ⲥⲟⲩ ⲭⲟⲩⲧⲁϥⲧⲉ ⲙⲡⲉⲓ|ⲉⲃⲟⲧ ⲛⲙϣⲓⲣ ϥⲓⲑ; *CSCN*, n. 25 on pp. 230–231 – ⲥⲟⲩ ⲭⲟⲩⲧⲁϥⲧⲉ ⲙⲡⲉⲓ|ⲉⲃⲟⲧ ⲛⲙϣⲓⲣ ⲉ̣ⲧ ⲕ̅ⲁ̅, "day twenty-four of this month of Mecheir, which is 24" (*CSCN* notes the proposition by Jacques van der Vliet who retains Till's interpretation of the date but reads ⲫ̅ⲕ̅ⲍ̅ at the end of the line).
 Date: Till 1948, p. 358 – AD 802/3; *CSCN*, n. 25 on pp. 230–231 – no annual date (*CSCN* notes the proposition by Jacques van der Vliet to date the inscription to AD 810/11).

▸ DBMNT 316
ll. 8–9: *I. Mina* 236 – ⲉⲅⲣⲁϥ[̣]ⲉⲛ̣ | [̣]ϥⲓⲉ, "écrit le … 512 (?)"; *CSCN*, n. 44 on p. 237 – either ⲉⲅⲣⲁϥ[ⲏ] ⲉⲛ | [ⲙⲏⲛⲓ ⲉⲡⲉⲓ]ϥ ⲓⲉ or ⲉⲅⲣⲁϥ[ⲏ] ⲉⲛ | [ⲙⲏⲛⲓ ⲉⲡⲓ]ϥⲓ ⲉ or ⲉⲅⲣⲁϥ[ⲏ] ⲉⲛ | [ⲙⲏⲛⲓ ϥⲁⲱ]ϥⲓ ⲉ (after Jacques van der Vliet's suggestion; cf. also table 36b on p. 242, with n. 71).
 Date: *I. Mina* 236 – AD 795/6; *CSCN*, n. 44 on p. 237 – no annual date.

▸ DBMNT 391
Date: *I. Mina* 313 and *I. Pern.* 20 – AD 907; Ochała 2009, pp. 138–140 – 18 June 906 (cf. *CSCN*, pp. 146–147).

▸ DBMNT 392
Date: *I. Mina* 314 – AD 907; *SBKopt.* II 1210 – 4 July 907; Ochała 2009, pp. 138–140 – 4 July 906 or 4 July 907 (cf. Grumel 1965, pp. 89–90 [no. 9], and *CSCN*, pp. 146–147).

▸ DBMNT 393
Date: *I. Mina* 315 – AD 907; Ochała 2009, pp. 138–140 – 30 June 906 or 30 June 907 (cf. Grumel 1965, pp. 89–90 [no. 9], and *CSCN*, pp. 146–147).

▸ DBMNT 396
Date: *I. Mina* 318 – AD 955; *CSCN*, table 11 on p. 71 – 16 December 954.

▸ DBMNT 397
Date: *I. Mina* 319 – AD 987; *CSCN*, table 11 on p. 71 – 25 July 987.

- ▶ DBMNT 398
  ll. 8–9: *I. Mina* 320 – ⲙⲡⲉⲓⲉⲱⲃⲱⲧ | ⲡⲁⲱⲛⲉ ⲕⲓ (*sic*) ⳋⲩⲭⲏ; Ochała 2009,
  pp. 140–141 – ⲙⲡⲉⲓⲉⲱⲃⲱⲧ | ⲡⲁⲱⲛⲉ ⲕ ⲓⳋⲩⲭⲏ (where ⲓⳋⲩⲭⲏ is an error for
  ⲧⳋⲩⲭⲏ; cf. *CSCN*, pp. 147–148).
  ll. 16–17: *I. Sak.* 221 – ⲥⲁⲣⲁⲅⲉⲓⲛⲟⲥ | ⲧⲓ; *I. Mina* 320 – ⲥⲁⲣⲁⲅⲉⲓⲛⲟⲥ | ⲧⲥ
  (corrected to ⲥⲁⲣⲁⲅⲉⲓⲛⲟⲥ | ⲧⲑ in the apparatus); Till 1948, p. 358 –
  ⲥⲁⲣⲁⲅⲉⲓⲛⲟⲥ | ⲧⲉ (cf. Ochała 2009, pp. 140–141, and *CSCN*, pp. 147–149).
  Date: *I. Mina* 320 – AD 923; Ochała 2009, pp. 140–141 – 14 June 918
  or 14 June 923 (cf. *CSCN*, pp. 147–149)

- ▶ DBMNT 400
  Date: *I. Louvre* 114 (latest edition) – 23 June 708; *CSCN*, table 11 on
  p. 71 – 23 June 707 (correctly already in *I. Lefebvre* 656 and *I. Tib.* 27;
  cf. Grumel 1965, p. 96 [no. 15]).

- ▶ DBMNT 403
  l. 6: Crowfoot 1927, p. 228, *SB* V 7428, Monneret de Villard 1935–57/I,
  p. 244, and *I. Tib.* 5 – ἀπὸ κόσμου ϛμτε; Grumel 1965, pp. 93–94 (no.
  12) – ἀπὸ κόσμου ϛμτϑ (cf. *CSCN*, pp. 195–196).
  Date: Crowfoot 1927, p. 228, *SB* V 7428, Monneret de Villard
  1935–57/I, p. 244, and *I. Tib.* 5 – AD 858; Grumel 1965, pp. 93–94 (no.
  12) – 6 December 857 (cf. *CSCN*, pp. 195–196).

- ▶ DBMNT 405
  ll. 16–17: *I. Firth*, p. 45 (grave 79) – εν μηνι παυνι | κ ινδ/ ι γ ϑ; *CSCN*, n.
  74 on p. 244 – ἐν μη(νὶ) Παυνι | κϑ ἰνδ/ι(κτίονος) ι ϥθ. Note, however,
  that in table 18 on p. 112, the abbreviation for indiction is indexed
  under ⲓⲛⲇ, thus the correct transcription should be ἐν μη(νὶ) Παυνι |
  κϑ ἰνδ(κτίονος) ι ϥθ (for which see DBMNT).

- ▶ DBMNT 425
  l. 3: *I. Firth*, p. 47 (grave 397) – μη[νι]; *CSCN*, n. 66 on p. 241 – or
  μη[νός].

- ▶ DBMNT 429
  l. 3: *I. Firth*, p. 48 (grave 486 [1]) – μ[ηνι]; *CSCN*, n. 66 on p. 241 – or
  μ[ηνός].

- ▶ DBMNT 431
  l. 13: *I. Tib.* 18 – μη(νος); *CSCN*, n. 63 on p. 241 – μη[νός] Χοίακ κϑ or
  μη[νι].

▸ DBMNT 442

ll. 2–3: *I. Firth*, p. 49 (grave 907) – μ[ηνι] | φαωφι ϊ κ(αι) ινδ/ι ϊ γ; *CSCN*, n. 73 on p. 243 – μ`η´(νὶ) [or μ`η´(νὸς)] | Φαωφι ιϛ ἰνδ/ι(κτίονος) ιγ. Note, however, that in table 18 on p. 112, the abbreviation for indiction is indexed under ιν⳽/, thus the correct transcription should be μ`η´(νὶ) [or μ`η´(νὸς)] | Φαωφι ϊϛ ἰνδ(ικτίονος) ϊγ (for which see DBMNT).

▸ DBMNT 450

ll. 3–4: *I. Firth*, p. 48 (grave 486 [2]) – εν μῆν | παυωνϊ ινδ/ ̣; *CSCN*, n. 72 on p. 243 – ἐγ(ράφη) μην(ὶ) [or μην(ὸς)] | Παυωνι ἰνδ//(ικτίονος) ̣. Note, however, that in table 18 on p. 112, the abbreviation for indiction is rendered as ιν⳽//, thus the correct transcription should be ἐγ(ράφη) μην(ὶ) [or μην(ὸς)] | Παυωνϊ ϛ (ἰ)νδ(ικτίονος) ϛ (for which see DBMNT).

▸ DBMNT 490

Date: *I. Lefebvre* 645 and *I. Tib.* 21 – AD 775; *CSCN*, table 11 on p. 71 – 25 June 775 (note that *CSCN* mistakenly gives the year 755 in the column "Date in edition").

▸ DBMNT 491

Date: *I. Lefebvre* 647, *I. Tib.* 22 – AD 913; Grumel 1965, p. 89 (no. 5) – 18 March 904; *SBKopt.* I 734 – 18 March 913; Ochała 2009, pp. 141–144 – 18 March 904 or 18 March 913 (cf. *CSCN*, pp. 149–150).

▸ DBMNT 499

Date: *I. Lefebvre* 661 and *I. Tib.* 43 – AD 699; *CSCN*, table 11 on p. 71 – 2 June 699.

▸ DBMNT 502

ll. 6–7 & 18–19: *I. Tib.* 12 (and previous editors) – παπᾶ Σινέ|ϑη Τοσσινε; Bagnall – Łajtar 1994, pp. 11–12 – Παπασινε | ϑηγ(άτηρ) Τοσσινε.

ll. 21–23: *I. Tib.* 12 – ἀπὸ μαρτ(ύρων) | ϑξ, σελλένι ιϑ, Χοί(α)κ ϛ[ῶ]τ(ε)ρ, ἀνάπαυσοο | [καὶ τὸν] γράφονα (after *I. Lefebvre* 664); Robert 1936 – ἀπὸ μαρτ(ύρων) | —: σελλένι ιϑ´ Χοι(ά)κ · π(ά)τ(ε)ρ, ἀνάπαυσο(ν) | ΟΤΑΨΟΝΑ; Łajtar 1993b, p. 102 – ἀπὸ Μαρτ(ύρων) | (ϑξ, σελλένι ιϑ, Χοί(α)κ πρ(ώ)τ(η). ἀνάπαυσο(ν). | οβ αφονⲁ (cf. Bagnall – Worp 1980, p. 18 [no. 60]).

Date: *I. Lefebvre* 664 – AM 49 = AD 334? (in commentary AD 644, citing Dumont – Homolle 1892, p. 586); *I. Tib.* 12 – AD 644? (after *I. Lefebvre* 664); Weissbrodt 1905/6, pp. 22–24 – AM 960 = AD 1244 (cf. Bagnall – Worp 1986, p. 353 [no. 11]); de Ricci 1909, p. 161 – AM 960 =

December 1243; Łajtar 1993b, pp. 101–104 – 27 November 1243; *CSCN*, table 11 on p. 71 – 28 November 1243.

- ▸ DBMNT 503
Date: *I. Tib.* 23 (latest edition) – AD 766; Bagnall – Worp 1981, p. 53 (no. 99) – 1 March 764 or 766 (cf. *CSCN*, table 11 on p. 72; cf. p. 117, where a typo occurs in the Diocletianic date [764 instead of 766]).

- ▸ DBMNT 512
ll. 21–22: Oates 1963, p. 166 – ⲡⲁⲏⲛⲏ ⲓⲍ, "Payni 17" (repeated in Trigger 1967, p. 20); *CSCN*, table 11 on p. 72, with n. 73 – ⲡⲁⲏⲛⲏ ·ⲍ̇, "Payni 7."
l. 22: Oates 1963, pp. 165–166 – ⲕⲥ ⲉⲓⲣⲏⲛⲓⲥ (interperted as a lunar date in the commentary); Grumel 1965, pp. 87–88 (no. 6) – ⲕⲉ (= καί) ⲉⲓⲣⲏⲛⲓⲥ, for a pax-fromula.
Date: Oates 1963, p. 170 – Pauni 17, AM 748 = 10 June 1032; Grumel 1965, pp. 87–88 (no. 6) – Pauni 17, AM 748 = 11 June 1032; *CSCN*, table 11 on p. 72 – Payni 7, AM 748 = 1 June 1032.

- ▸ DBMNT 514
Date: Säve-Söderbergh 1981, pp. 54–55 – AD 978; correctly in Holthoer – Salonen – Ziliacus 1964, pp. 12–13 – 18 September – 16 October 977 (cf. *CSCN*, table 24 on p. 170).

- ▸ DBMNT 517
ll. 8–9: Richter (S.) 2002, p. 166 – ⲉⲧⲉ | ⲥⲟⲩ ⲭⲟⲩⲱⲧⲥⲁϣϥⲉ ⲛ̄ⲧⲱⲃⲉ ⲓ ⲍ̄, "am 27. Tobe, I(ndiktionsjahr) 7" (as all previous editors); Ochała 2011b, p. 220 – ⲥⲟⲩ ⲭⲟⲩⲱⲧⲥⲁϣϥⲉ ⲛ̄ⲧⲱⲃⲉ ⲕⲍ̄, "day twenty-seven of (the month of) Tybi, 27."
Date: various annual dates were proposed; for a review, see Richter 2002, pp. 168–170. Ochała 2011, pp. 220–223, proves that there is no annual date in the inscription.

- ▸ DBMNT 519
l. 1: Elanskaia 1977, p. 273 – [παῦ]υει ᾱ Χ(ριστο)ῦ Τ̤[μζ], "on the 1st (day of the month of) Payni, (from the Incarnation) of Christ (in the year) 9[31]" (trans. from Russian – G.O.); *CSCN*, pp. 192–193 – [---] εια Χ(ριστο)ῦ Τ̤[μζ ---], "[from the] Incarnation of Christ 9[31]" (cf. *CSCN*, table 29b on p. 191), where [---]εια can be reconstructed as [ἐπιδημ]είᾳ (for ἐπιδεμίᾳ) or [παρουσ]είᾳ (for παρουσείᾳ) or [ἐπιφαν]είᾳ or [γενεθλ]είᾳ (for γενεθλίᾳ).
l. 2: Elanskaia 1977, p. 273 – ἀποπέν[θει?]; *CSCN*, n. 23 on p. 193 – ἀπὸ πεν[---] (following a suggestion of Adam Łajtar), as a designation of as yet unidentified dating element.

Date: Elanaskaia 1977, p. 275 – AD 939; *CSCN*, table 11 on p. 72 –
29 August 938 to 29 August 939.

▸ DBMNT 523
Date: Simpson 1964, pp. 21–22, Trigger 1967, p. 14, Simpson 1967, pp.
181–183, *SBKopt.* I 460 – AD 921; *CSCN*, table 11 on p. 72 – 17 November
920.

▸ DBMNT 533
Date: Kortenbeutel 1938, pp. 61–64, *SB* V 8763, and *I. Tib.* 10 – AD 1157;
CSCN, table 11 on p. 72 – 26 July 1157.

▸ DBMNT 537
Date: Monneret de Villard 1935–57/I, p. 26 – AD 803; *CSCN*, table 11 on
p. 72 – 10 September 802.

▸ DBMNT 548
ll. 5–8: Monneret de Villard 1935–57/I, p. 548 – πε²οοⲩ ⲛⲧⲁⲥⲙ̄ⲧⲟⲛ |
ⲙⲙⲟⲥ ⲛⲟ̇ⲧⲏⲩⲡⲟ | ⲛⲟⲟⲩ ⲱ̀ⲟ́ⲙⲛⲧ | ⲙ ⲡⲁϣⲟⲛⲟ; *CSCN*, n. 32 on p. 233 –
πε²οοⲩ ⲛⲧⲁⲥⲙ̄ⲧⲟⲛ | ⲙⲙⲟⲥ ⲛⲟ̇ⲧⲏⲩ ⲡⲉ | ⲛⲥⲟⲩ ϣ̀ⲟ́ⲙⲛⲧ | ⲙⲡⲁϣⲟⲛⲥ.

▸ DBMNT 551
ll. 5–7: Cramer 1938, p. 20 – ⲡⲁⲭⲱⲛⲥ ⲓⲛⲁ | ⲋ ⲥⲁⲣⲁⲕⲩ(!) | ⎵ ⲧⲟⲋ (repeated
in *SBKopt.* IV 1990); Ochała 2009, p. 146 – ⲡⲁⲭⲱⲛ ⲋ ⲓⲛⲁ | ⲋ ⲥⲁⲣⲁⲕ̄ⲩ̄ |
vac. ⲧⲍ̇ⲋ (cf. *CSCN*, p. 153).
Date: Cramer 1938, p. 20, and *SBKopt.* IV 1990 – AD 986/7; Ochała
2009, p. 146 – 1 May 977 (cf. *CSCN*, p. 153).

▸ DBMNT 552
ll. 6–8: Cramer 1939, p. 21 – ⲁⲡⲱ(!) ⲇⲓⲟⲕⲗ ⲓⲥ ⲭ|ⲡⲏ(ⲃ?) ⲥⲁⲣⲁⲕⲛⲟⲥ(!) |
ⲧⲟⲏ(ⲃ?), "nach Diokletian 16 (+) 688 (oder 682), im Jahre der Saraz-
enen 378 (oder 372)"; *SBKopt.* IV 1991 – ⲁⲡⲱ(!) ⲇⲓⲟⲕⲗ ⲓⲥ ⲭ|ⲡⲏ ⲥⲁⲣⲁⲕⲛⲟⲥ
(sic) | ⲧⲟⲃ; Ochała 2009, pp. 145–146 – ⲁⲡⲱ ⲇⲓⲟⲕⲗⲓⲥ ⲭ|ⲡⲏ ⲥⲁⲣⲁⲕⲛⲟⲥ ⲧ[̣]
ⲏ, "(in the year) from Diocletian 688, (in the year) from the Saracens
3[.]8" (cf. *CSCN*, pp. 65, 151). Note that *CSBE²*, n. 81 on p. 80, suggests
to read ⲧⲍ̇ⲃ (362) as the final numeral.
l. 10: Cramer 1938, p. 21 – ⲉⲡⲉϥⲓ (repeated in *SBKopt.* IV 1991);
Ochała 2009, pp. 145–146 – ⲉⲡⲉϥ ⲓ, "Epeiph 10" (cf. *CSCN*, p. 151).
Date: Cramer 1939, p. 21 – AD 988 or 982; *CSBE²*, p. 80, with n. 81 –
AD 972; *SBKopt.* IV 1991 – AD 982/3; Ochała 2009, pp. 145–146 – 4 July
972 (cf. *CSCN*, pp. 151–152).

▸ DBMNT 553
l. 8: Cramer 1938, p. 21 – ϲⲁⲣⲁⲕⲓⲛˋⲟⲥ´ ⲧⲟ(ⲅ)?; Ochała 2009, p. 145 –
ϲⲁⲣⲁⲕⲓⲛⲟⲥ ⲧⲟ (cf. *CSCN*, p. 151).
    Date: Cramer 1938, p. 21, *SBKopt*. IV 1992 – AD 983/4; Ochała 2009,
p. 145 – 17 July 980 – 6 July 981 (cf. *CSCN*, pp. 151–152).

▸ DBMNT 554
Date: *I. Lefebvre* 631 and Griffith 1913, p. 63 (no. 8) – AD 1049; *CSCN*,
table 11 on p. 72 – 6 September 1048.

▸ DBMNT 558
Editions: van Gerven Oei 2011 – new edition with translation and
commentary.
    l. 5: van Gerven Oei 2011, p. 236 – ⲟ̇ⲙⲟϲⲉⲇⲗⲗⲟ
ⲙⲟⲩⲇⲟⲩⲧⲁⲕⲕⲉⲛⲛⲁ{ⲛⲁ}, "he is led to being counted out (?)"; *P. QI* IV
95, l. 4, commentary ad loc. – "he is led to his reckoning."

▸ DBMNT 569
Date: Richter 2013, p. 142 – Phaophi 7, 14, 21, or 28 (= 4, 11, 18, or
25 October); *CSCN*, table 11 on p. 72 – 5, 12, 19, or 26 October (= Phao-
phi 8, 15, 22, or 29).

▸ DBMNT 570
Date: Smith 1962, pp. 6–8 – AD 712; *CSCN*, p. 117 – 31 March 711 or
31 March 712.

▸ DBMNT 574
Date: *RCEA* VII 2765 – 1–17 November 1088; *CSCN*, table 24 on p. 170 –
29 October – 7 November 1088.

▸ DBMNT 575
Date: *RCEA* VIII 2862 – 6 March 1096; *CSCN*, table 24 on p. 170 –
7 March 1096.

▸ DBMNT 576
Date: *RCEA* VIII 2950 – 16 February 1112; *CSCN*, table 24 on p. 170 –
4 February 1113.

▸ DBMNT 581
Date: *P. QI* III 30 – 23 August 1156; Łajtar 2009b, p. 98 – 22 August 1155.
    l. 4: *P. QI* III 30 – ⲡⲁⲗⲁⲅⲛ̄; Joost Hagen (personal communication)
– ⲡⲁⲗⲁⲧⲛ̄.
    l. 37: *P. QI* III 30 – ⲉⲓⲧⲧ ⲇ̣ⲓ̣[ⲁ; Łajtar 2009b, p. 99 – ⲉⲓⲧⲇⲉ.

l. 40: *P.QI* III 30 – ⲙⲱ̄ⲩⲥⲏⲥ ⲟⲩⲣⲟⲩⲣⲡⲛⲁ; Łajtar 2009b, p. 99 – ⲙⲱ̄ⲥⲏⲥ ⲟⲩⲣⲟⲩⲣⲡⲛⲁ `ⲃ̄ⲗ̄ⲥ′

▸ DBMNT 582
ll. 8–9: *P. QI* III 34 – ⲥⲓⲙⲁⲙⲟⲛ· ⲟⲁⲯⲟⲁⲁ: ⲉⲓⲛ̄ⲛ̄· ⲅ̄ⲥ̄ⲥ̄ⲛ̄ ⲅⲁ`ⲛ′ | ⲧⲟⲧ̄ⲗ̄· ⲁⲟⲩⲕⲥ̄ⲛ̄· ⲟⲁⲯⲟⲁⲁ· ⲉⲓⲛ̄ⲛ̄; "Simamon being Tricliniaris, Tot of Ṇissin-Ṇal and Tricliniaris of Douksi"; Łajtar 2009b, pp. 100–101 – ⲥⲓⲙⲁⲙⲟⲛ ⲟⲁⲯⲟⲁⲁ ⲉⲓⲛ̄ⲛ̄ <ⲥⲟⲅⲟⲃ̄ⲁ> ⲅ̄ⲥ̄ⲥ̄ⲛ̄ ⲅⲁ`ⲛ′ | ⲧⲟⲧ̄ⲗ̄ ⲁⲟⲩⲕⲥ̄ⲛ̄ ⲟⲁⲯⲟⲁⲁ ⲉⲓⲛ̄ⲛ̄; "Als Simamon Tricliniarius war, als Soṅoja, Tot von Ṇissin-Ṇal, Tricliniarius von Douksi war."

ll. 24–25: *P. QI* III 34 – "And the price that I received"; Browne 1996d, p. 131 – "The price that I received."

▸ DBMNT 583
Date: *P. QI* III 35 – 31 July 1188; Łajtar 2009b, p. 101 – 31 July 1187.

ll. 22–23: *P. QI* III 35 – "I, Kapenê, daughter of the Priest Makari"; Łajtar 2009b, p. 102 – "Ich, Kapenê, Priester, Asti von Makari" or "Ich, Kapenê, Asti des Priesters Makari."

▸ DBMNT 584
Date: *P. QI* III 36 – 1 November 1191; Łajtar 2009b, p. 102 – 1 November 1190.

▸ DBMNT 585
ll. 23–24: *P. QI* III 37 – ⲙⲁⲯⲱⲟⲩⲁⲁ ⲁ̄ⲧⲛ̄ⲁⲁⲛ̄ⲛ̄ ⲅⲁⲗⲗⲟ, "Maššuda, son of Atindani"; Łajtar 2009b, p. 102 – "Maššuda, Ṇal von Atindan," where "Atindan" is a toponym and "Ṇal" is equivalent of "Tot" (cf. Łajtar 2006, 95 with n. 33).

l. 27: *P. QI* III 37 – ⲧⲉⲣⲓ ⲕⲟⲁ̄ⲡ̄ⲡⲉⲛ ⲧⲟⲧ̄ⲗⲗⲟ, "Teri, Tot of Kodippe"; Łajtar 2009b, pp. 102–103 – ⲧⲉⲣⲓⲕⲟ ⲁ̄ⲡ̄ⲡⲉⲛ ⲧⲟⲧ̄ⲗⲗⲟ, "Teriko, Tot der Stadt."

▸ DBMNT 586
Date: *P. QI* III 38 – 30 December 1199; *CSCN*, table 11 on p. 72 – 30 December 1198.

▸ DBMNT 587
ll. 13–14: *P. QI* III 39 – "the land which consists of a garden plot"; *P. QI* IV 109 re, ll. 16–17, commentary – "the land which borders Aggeshouda's."

▸ DBMNT 588
Date: *P. QI* III 40 – 16 August 1200; *CSCN*, table 11 on p. 72 – 16 August 1199.

- DBMNT 591
  l. 8: *P. QI* III 33 – ⲅⲟⲡⲁ, "Nubian"; Rilly 2010, p. 373 – "slave."

- DBMNT 599
  l. 6: Tsakos 2009a, p. 226 – _ _T; *CSCN*, table 18 on p. 112 – ⲓⲛ`ⲁ´, for ινδ(ικτίονος).

  Date: Tsakos 2009a, pp. 226–227 – 510–519 from Diocletian = AD 794–803; *CSCN*, table 13c on p. 97 – 27 April 795.

- DBMNT 600
  margin: Tsakos 2009a, p. 227 – [--- ⲇⲓⲟⲕⲗⲏⲧⲓⲁ]ⲛⲟ`ⲩ´ ⲫ̅ⲙ̅ ⲉ`ⲧ´ⲏ ⲕ̅ⲙ̅ⲩ̅ ⲋ`ⲧ´ⲕⲁ; *CSCN*, pp. 194–195 – [--- ⲇⲓⲟⲕⲗⲏⲧⲓⲁ]ⲛⲟ`ⲩ´ ⲫ̅ⲙ̅ⲉ <ⲉ>`ⲧ´ⲏ ⲕ̅ⲙ̅ⲩ̅ ⲋ`ⲧ´ⲕⲁ.

- DBMNT 602
  Date: *RCEA* VI 2321 – 24 Shabaan AH 412 = 3 December 1021; *CSCN*, table 24 on p. 170 – 25 Shabaan AH 412 = 4 December 1021.
  Provenance: RCEA VI 2321 – Upper Egypt; Monneret de Villard 1938, p. 118 – Arminna.

- DBMNT 624
  l. 4: *I. Firth*, p. 48 (grave 486 [3]) – μη[νι]; *CSCN*, n. 68 on p. 241 – or μη[νός].

- DBMNT 627
  ll. 1–3: Moneret de Villard 1931, p. 10 – ϣⲟⲙⲓⲛ vac. | ⲡⲉⲡϩ ⲛⲟⲩⲉⲓ|ⲣⲏⲛⲏ; *CSCN*, n. 37 on p. 235 – [ⲙⲛⲧ]ϣⲟⲙⲛⲧ [ⲛⲉ]|ⲡⲉⲡ ⲍⲛ ⲟⲩⲉⲓ|ⲣⲏⲛⲏ (after Jacques van der Vliet's suggestion).

- DBMNT 651
  Date: *CSCN*, table 13b on p. 95 and table 48 on p. 343 gives incorrect date of AD 993/4; the correct date (AD 992/3) in *I. QI* 18 (*ed. pr.*) and DBMNT.

- DBMNT 686
  CSCN, n. 23 on p. 19, table 8b on p. 48, p. 50, wrongly describes two 14th-century documents from Edfu as Old Nubian, while the texts are in Arabic (Monneret de Villard 1935–57/I, p. 23; cf. Ochała 2014b, n. 11 on p. 3); correct in DBMNT.

- DBMNT 625, 695, 696, 697, 698
  Date: Adam Łajtar (personal communication) – "Thoth is the month of the highest Nile flood. Practically, the entire Nile valley must have been inundated at that period of the year, including the rocks

of the cataract. Seen in this light, the ostraka may testify to the shipment of goods from one side of the cataract to another (from the north to the south?).”

▸ DBMNT 695
l. 1: Adam Łajtar (personal communication) – “The name Rhobia: The context requires a genitive form. If the name is not undeclined, then its nominative should probably be reconstructed as Rhobias. This looks neither Greek nor Nubian but rather Semitic. Perhaps it is an unattested form of known Hebrew name like Rahab.”

▸ DBMNT 697
l. 1: The name Arousea: cf. Arouase in unpublished texts from Banganarti.

▸ DBMNT 1020
l. 11: *P. QI* II 23 – ⲁⲗⲅⲟⲩⲛⲓⲁⲟ ⲧⲟⲣⲁ, “entered the inlet”; *P. QI* IV 67, l. 9, commentary – “entered the (place?) of the *algou*.” ⲁⲗⲅⲟⲩ is not a geographic term (“inlet, bay”?) but a title (see also under DBMNT 1044).

▸ DBMNT 1022
l. 3: *P. QI* II 25 – ⲕⲟⲩⲁ.ⲏ, “wife”; *P. QI* IV 89, l. 11, commentary – Nobiin and Andaandi parallels produce other options for ⲕⲟⲩⲁ.ⲏ, including “enemy,” “enclosure,” and “slave.” The translation of *P. QI* II 25, l. 3 changes thus: “for, sending for my enemy (or “my slave”), they were about to seek (me?) out and mock (me?).”
    ll. 6–7: *P. QI* II 25 – “And breathing heavily (?), I come running (?)”; *P. QI* IV 96, l. 7, commentary – “And inheriting it... I come running” (ⲥⲉⲩⲕⲟⲛ from the stem *seu-*, “to inherit”).

▸ DBMNT 1026
l. 7: *P. QI* III 42 – ⲉⲓⲥⲥⲉⲗⲟ; Browne 1996d, p. 130 – ⲉⲓⲥ ⲥⲉⲗⲟ.

▸ DBMNT 1029
l. 12: *P. QI* III 45 – ⲉⲛ̄ⲉⲥⲧⲗ̄ⲗⲟ; Browne 1996d, p. 131 – ⲉ̄ⲛⲉⲥⲧⲗ̄ⲗⲟ.

▸ DBMNT 1031
i, ll. 7–8: *P. QI* III 47 – “in you will come forth”; Browne 1996d, p. 131 – “will come forth from you.”

▸ DBMNT 1032
l. 1: *P. QI* III 48 – “The Eparch to Sim( )”; Browne 1996d, p. 131 – “It is the eparch’s statement.”

▸ DBMNT 1037

ll. 3–4: *P. QI* III 53 – "give anyone to me — weak though I am (?) —"; Browne 1996d, p. 131 – "give me anyone who is weak."

    l. 8: *P. QI* III 53 – ⲙⲁϣϣⲟⲩⲁ( ) ⲅⲟⲣⲧ( ) ⲁ̄ⲟ. Unpublished images of the text confirm Adam Łajtar's suggestion (personal communication): ⲙⲁϣϣⲟⲩⲁ( ) ⲅⲟⲣⲧ( ) ⲅⲟ( ) ("Lord of the Elders").

▸ DBMNT 1040

ii, l. 5: *P. QI* III 56 – ⲉⲓⲧⲁⲙⲉⲛⲟⲛⲛⲟ; Browne 1996d, p. 131 – ⲉⲓⲧⲁⲙⲙⲉⲛⲟⲛⲛⲟ.

▸ DBMNT 1041

l. 6: *P. QI* III 57 – "the one who recites it"; Browne 1996d, p. 131 – "that which it says."

▸ DBMNT 1044

l. 7: *P. QI* III 60 – ⲕⲁⲗ( ) ⲥⲉⲩⲁ( ) ⲕⲟⲡⲁⲅⲛ̄ ⲣⲁⲫⲁⲏⲗⲛⲁⲗⲟ; see the commentary to *P. QI* IV 65, ll. 9–10.

    l. 14: *P. QI* III 60 – ⲁⲗⲅⲟⲩⲛⲓ̄ⲟ̄ ⲡⲁⲣⲣⲉ· ⲁ̄ⲗⲟ, "4 plots in the inlet"; *P. QI* IV 67, l. 9, commentary – "4 plots in the (place?) of the *algou*."

▸ DBMNT 1064

l. 6: Donadoni 1967, p. 65 (no. 3) – ⲑⲉⲓⲛ ⲁⲅⲣⲁⲩⲟⲛ; Łajtar 2003a, p. 13 – ⲑⲉⲅⲛⲁ.

▸ DBMNT 1111

l. 7: Boyaval 1972, p. 23 – τοῦ [ἀ]ββᾶ Λ[έ]ωνͅ ἐπισ(κόπου) ΖΑΗ, "l'abbé Léon (?), évêque de Saï"; van der Vliet 2008, p. 158 – τὸν δ(οῦλον σου) ἀβ(βᾶ) Συμ[ε]ῶν ἐπισκ(όπου) Ζαη, "Abba Symeon, bishop of Sai."

▸ DBMNT 1372

ll. 2–3: Bietak – Schwarz 1987, p. 129 – Παχ(ω)ρας | ϑε γαια; Łajtar 2003a, p. 13 – Παχ(ω)ρας ϑεγνα.

▸ DBMNT 2843

ve, l. 1: *P. QI* IV 102 – ⲛ̣ⲉ̣ⲡⲁⲣⲭ(ⲟⲥ); Grzegorz Ochała (personal communication) – ï(ⲟⲁⲛⲛⲟ)ⲩ̄ ⲉⲡⲁⲣⲭ(ⲟⲥ).

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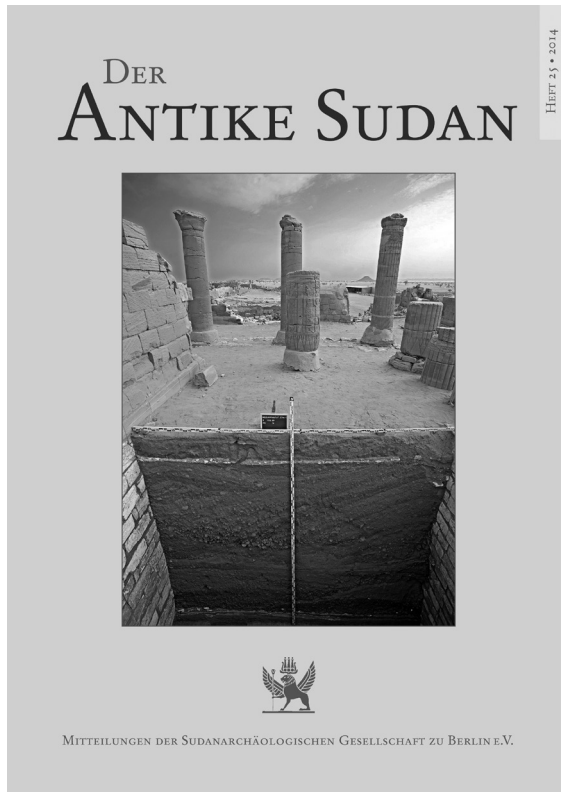
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